

Successful Current Practices: Getting Returns on Investment (ROI)!

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The opinions expressed are those of the author and do not necessarily reflect the views of the
U.S. Government.

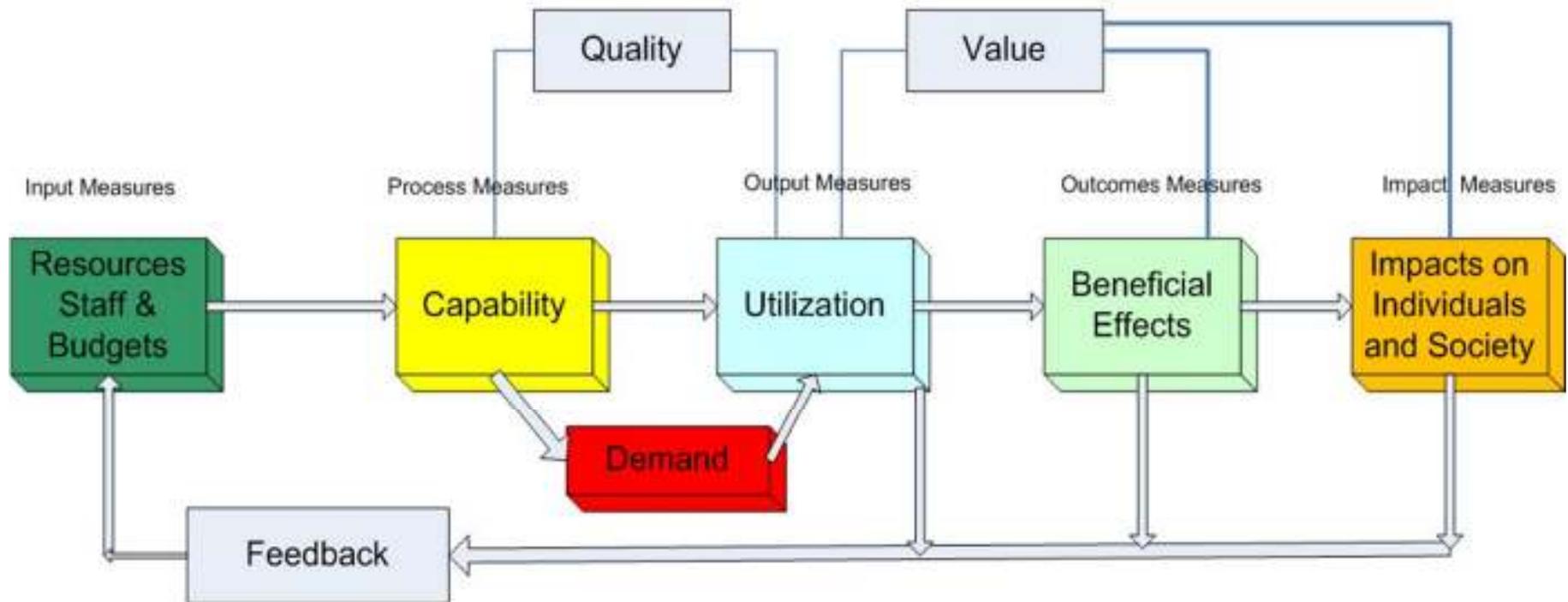
Topics

- Conceptual Model for Valuing a Library
- Terms Defined
- Local Context
- Status of Effort

Conceptual Model

Strategic Points At Which to Measure Library Performance

This figure is adapted from R. H. Orr, Measuring the Goodness of Library Services: The General Framework for Considering Quantitative Measures. *Journal of Documentation*, 29(3) 315-32, September 1973.



Where and when to apply these measures are key questions.

Terms Defined

- **Value** – merit, importance, or relative worth
- **Return on investment (ROI)**. A form of cost-benefit analysis that measures the costs of a program (i.e., the investment) versus the financial return realized by that program.

From

<http://www.cdc.gov/leanworks/resources/glossary.html>

What Does *Return On Investment (ROI)* Mean?

A performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. To calculate ROI, the benefit (return) of an investment is divided by the cost of the investment; the result is expressed as a percentage or a ratio.

The return on investment formula:

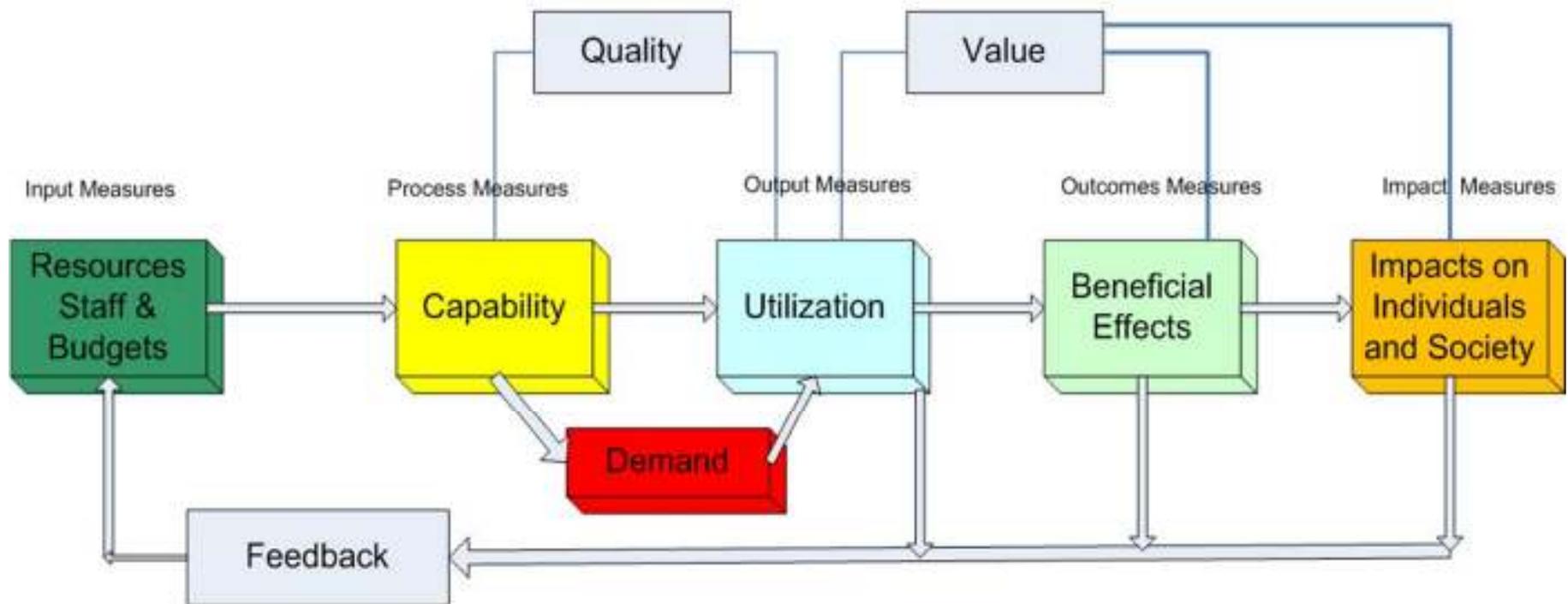
$$\text{ROI} = \frac{\text{Gain from investment} - \text{Cost of the investment}}{\text{Cost of the investment}}$$

from Investopedia

<http://www.investopedia.com/terms/r/returnoninvestment.asp>

Strategic Points At Which to Measure Library Performance

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Where and when to apply these measures are key questions.

Local Context: Library's Role in NOAA

Science, Service, and Stewardship

To understand and anticipate changes in climate,
weather, oceans, and coasts, ...

Library services provides access to current and past scientific research on climate, weather, oceans, and coasts needed to understand and anticipate changes

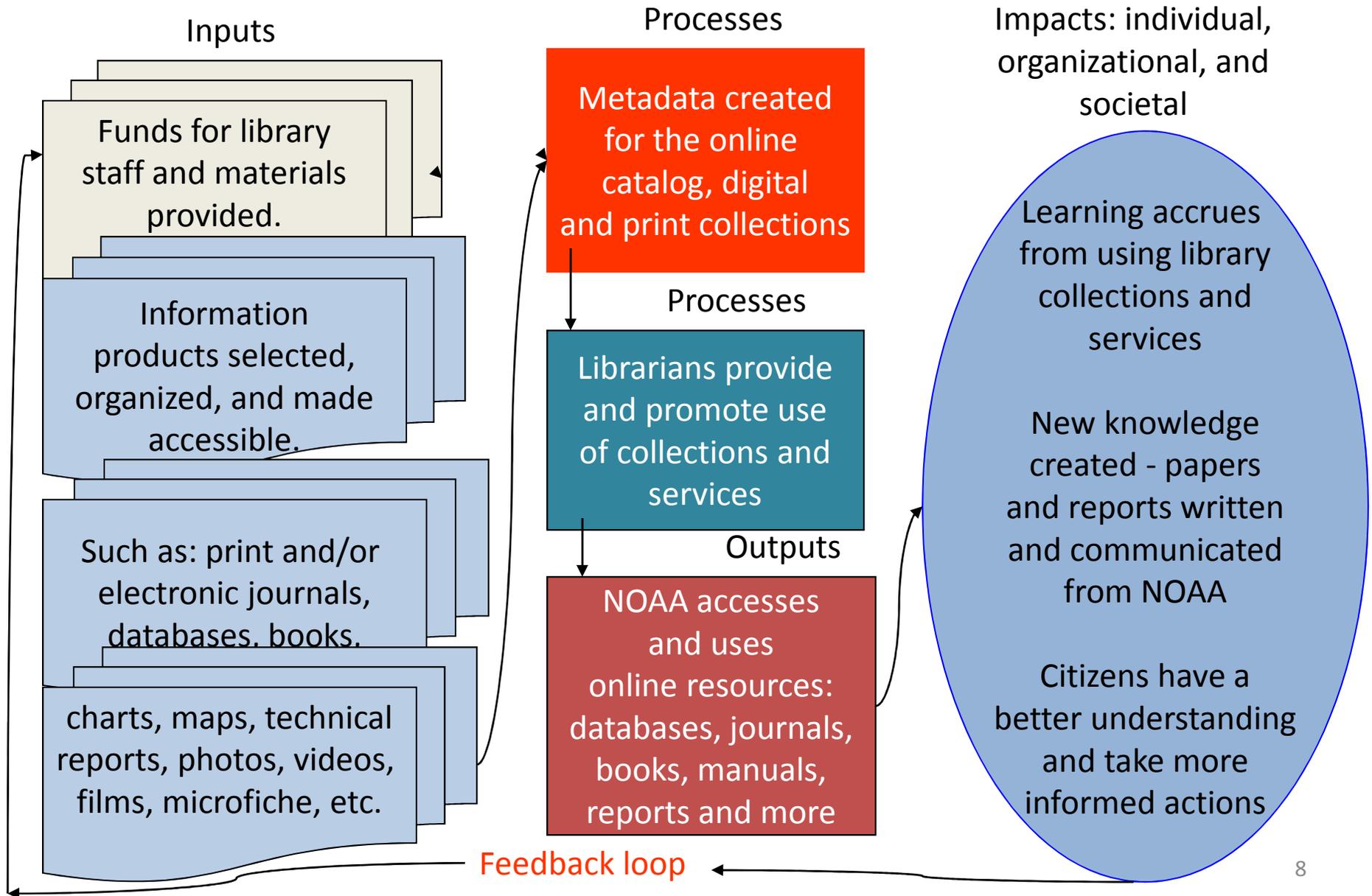
... share the knowledge and information with others,
and ...

Library services provides online access to many NOAA publications and the metadata needed for others to add the information and publications to their own collections

...to conserve and manage marine resources.

Library services are digitizing, where possible, NOAA's intellectual output and making it available via the Web

Value Chain to Knowledge in NOAA: The Roles Librarians and Libraries Play



Context: NOAA Central & Regional Libraries

Library & Information Services Division operates

- NOAA Central Library, Silver Spring, MD

- NOAA Regional Library in Seattle, WA

- NOAA Regional Library in Miami, FL

- National Hurricane Center/Tropical Prediction Center Library in Miami, FL

- Betty Petersen Memorial Library, in Camp Springs, MD

Staffing (24)

- 9 full time federal staff

- 2 graduate students – part time (federal staff)

- 11 contactors – full time

- 2 volunteers – part time

Coordinates with ~25 other NOAA libraries

http://www.lib.noaa.gov/about/lib_network.html

<http://www.history.noaa.gov>

Usage: Data Downloaded from NOAA Central Library's Home Page - January through September 2010

2010 www.lib.noaa.gov

Month	Successful Requests (Files)	Distinct Hosts Served	Data Transferred (Gigabytes)
January	407,798	24,056	127.99
February	419,284	25,053	142.71
March	521,907	27,717	176.70
April	479,029	27,243	141.87
May	501,306	27,074	181.10
June	440,605	23,967	137.89
July	406,049	22,501	116.71
August	404,257	22,383	135.00
September	428,980	22,594	191.58
October			
November			
December			
Total	4,009,215	222,588	1,351.55

Gigabytes

Monthly

Averages	445,468	24,732
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2010 docs.lib.noaa.gov

Month	Successful Requests (Files)	Distinct Hosts Served	Data Transferred (Terabytes)
January	1,159,795	25,261	1.219
February	1,089,555	28,397	2.043
March	980,010	27,174	1.957
April	827,853	22,902	1.409
May	917,956	21,568	1.525
June	755,622	18,312	1.126
July	718,363	18,059	1.067
August	552,451	13,619	2.319
September	766,770	21,267	5.331
October			
November			
December			
Total	7,768,375	196,559	17.996

Terabytes

Monthly

Averages	863,153	21,840
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Data downloaded (Transferred) from the NOAA Central Library since January 2010 10 terabytes ~ 61,000,000 books at 100 pages each, 1800 characters per page or 20, 000,000 books at 300 pages each. **What is the value of these down loads?**

Usage

www.photolib.noaa.gov

average 'visits' per month (Webalizer – “Visits occur when some remote site makes a request for a *page* on your server for the first time”) 130,167

www.history.noaa.gov

average 'visits' per month 17,877

Value of the usage: at minimum wage \$7.25 a minute is worth \$0.12 and 10 minutes is worth \$1.20. **So what are the visits to the Photo Library and History page worth?**

At 10 minutes per visit the annual value is \$2,131,833 or a 1 minute \$213,183.

Usage

Journals: successful full-text article requests

(2 of 5) libraries for 2009

Science Direct	42,069
Nature	10,103
Science	11,408
JSTOR	<u>45,797</u>
sub total	109,377

Value of the usage: cost of journals, time saved

Cost to purchase individual articles

$$109,377 \times \$25.00 = \underline{\$2,734,425}$$

Time saved by not going to the library *15 minutes*

(2080 x \$40 per hr = \$83,200 yr, \$10 for 15 minutes)

$$109,377 \times \$10.00 = \underline{\$1,093,770}$$

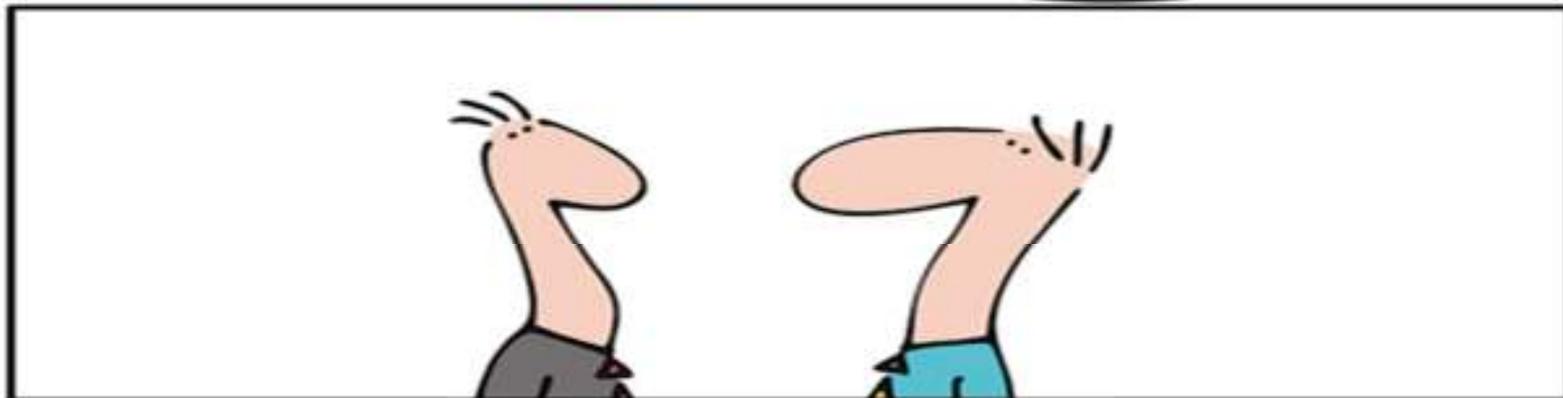
Status of Effort

$$\text{ROI} = \frac{\text{Gain from investment} - \text{Cost of the investment}}{\text{Cost of the investment}}$$

Costs - known for the most part

Do we really want to express everything in dollars?

Tangibles and Intangibles



ROI

Researcher's Workstation



Vannevar Bush “As We May Think” *Atlantic Monthly*, July 1945.

“A memex is a device in which an individual stores all his books, records, and communications, and which mechanized so that it may be consulted with exceeding speed and flexibility.”

“Mendel’s concept of the laws of genetics was lost to the world for a generation because his publication did not reach the few who were capable of grasping and extending it; and this sort of catastrophe is undoubtedly being repeated all about us, as truly significant attainments become lost in the mass of the inconsequential.”

Clay tablets, papyrus, scroll, parchment, book, e-books all acquired, organized, retrieved, and preserved by librarians. Libraries are not going away...

What makes a library great?

1. “Great libraries provide measurably superior service. The greatest innovation is superior service. The most constant measure of quality is the delivery of superior service.
2. Great libraries have great funding.
3. Great libraries train and retrain their staffs. (5% not 1% or less)
4. Great libraries integrate the marketing of virtual, place and outreach services.
5. Great libraries serve both the weakest and the strongest among their constituents.
6. Great libraries provide constituents with education and entertainment.
7. Great libraries use virtual tools to offer a full range of timely information and services.”

Glen Holt. What Makes a Library Great? in *Public Library Quarterly* 24(2)83-89, 2006.