

MIS Metrics — CIS 211 — Duke Hutchings

How do we determine the successfulness of information systems?

Office: 314 Duke Bldg

Office Hours

3:30 — 5:00 Mondays and Wednesdays

8:00 — 9:30 Tuesdays

2:30 — 4:00 Thursdays

appointments always welcome

Acknowledgement

The content of the following slides is based on Chapter 4 of

Business Driven Technology (3rd edition)

by P. Baltzan, A. Phillips, & S. Haag

ISBN: 9780073376745

Web site: <http://www.mhhe.com/bdt3e/>

Before we get to metrics though...

... syllabus discussion time

Metrics

So what's a metric?

Metrics

Metric — standard measure to assess performance
(note: a metric is *not* a process of measurement)

Example

What are typical metrics used in academic environments?
What is the process of measurement?

Financial Metrics

(GI) What is ROI?

Financial Metrics

ROI — Return on Investment

A percentage:
$$\frac{\text{Total Benefits} - \text{Total Costs}}{\text{Total Costs}}$$

Note: time is implicit in ROI (could be 10 days or 10 years)

IS Metrics — concepts vs. definitions

IS Metrics

efficiency: performance of IT system itself

effectiveness: impact IT has on business operations & processes

definition (specific to IS and IT)

Drucker (<http://www.druckerinstitute.com>)

efficiency: doing things right

effectiveness: doing the right things

concept (broad idea, relatable to many areas)

Efficiency & Effectiveness

(G2) Is ROI an efficiency metric or effectiveness metric?

(G5) Give a metric such that

a manager wants to see a large amount, but
a customer wants to see a small amount

(G3) What is the effect of security on efficiency and effectiveness?

Relationship of efficiency & effectiveness

Sometimes, you trade one for the other (security)

Other times, an increase in one allows an increase in another (ROI)

Efficient for the business might be inefficient for the customer (G5);
be aware of the **perspective** of the metric

Efficiency in ISs

Typically space and time:

throughput (amt. of data processed in a given time period)

transaction speed (amount of time needed for a given data amt.)

availability (likelihood that a system will be accessible)

others?

Accuracy is also a typical measurement

Effectiveness in ISs

Usability

Satisfaction

Conversion

Discussion: Is there a relationship between effectiveness and efficiency?

Typical Web-oriented metrics

Click-through = (ads clicked) / (ads shown)

Conversion = (people who buy) / (people who visit)

Total Hits = num. page visits in a given time period

Unique Visitors = num. people visiting a site in a given time period

Page Exposure = (unique visitors) / (total hits)

Can you measure time?

Measuring Facebook usage

(GRE 4) What metrics are most important for Facebook to measure?

CRM — some example metrics

CRM — customer relationship management

sales — num. new customers, num. retained customers

service — num. cases per rep., avg. turnaround time

marketing — num. uses of promo code, num. new, retained cust.

More about CRM next time...

Assignments — CIS 211 — Duke Hutchings

Homework Exercise 1 & 2 (see Web schedule)

Guided Reading Exercise 3 (see Web schedule)

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