

Metrics, Measures and Analysis

Patricia Riley and Allie Noyes
Annenberg School for Communication

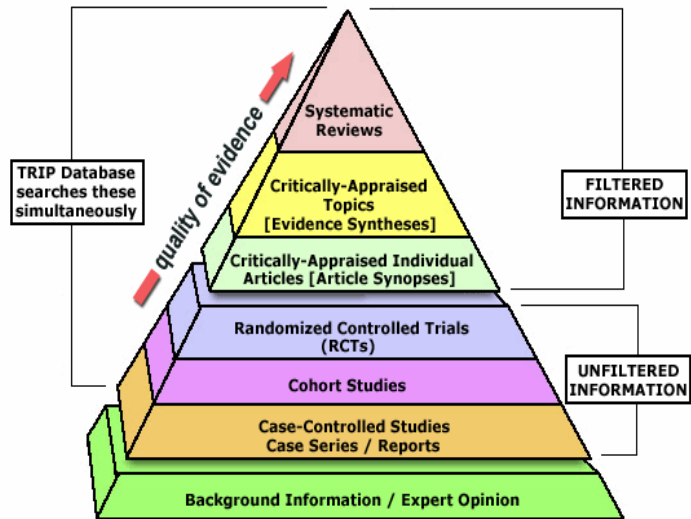
Objectives

- ▶ Discuss possible approaches to measurement
- ▶ Focus on communication metrics
- ▶ Potential analytical approaches

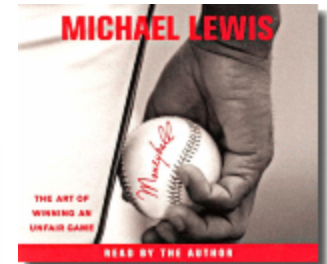
It is a Data-Crunching World!



Corporate Dashboards



Evidence-Based Medicine



Baseball

Metrics Today

- ▶ Organizations devote significant time, energy and resources to measuring their performance in achieving strategic goals
- ▶ A recent survey found that only 35% of organizations rated their systems of metrics as effective or very effective
- ▶ Today's measurements bear a remarkable resemblance to those from years ago while organizations, media and communication technology have transformed dramatically

How to Develop New Metrics

- ▶ Depends on what is important to the strategy
 - New vision?
 - Enterprise problems?
 - Community issues?
- ▶ Where is the leverage?
 - Bang for the buck
 - Where you have expertise or local knowledge
 - Inflection points
- ▶ Measurement
 - Valid
 - Reliable
- ▶ Measures
 - Lag
 - Lead
 - Coincident
- ▶ What is most difficult?

What are the trade-offs?

Examples from the World Bank

Table 7. Types of Communication Intervention Outcomes

Type of Outcome	Number of Studies Evaluated
Behavior change	22
Change in knowledge and attitude	25
Empowerment and capability building	9
Coalition building and partnership	8
Resource development	5

Strategic Communication

• There are many measures of performance but fewer measures that help with preliminary analyses. Similarly there are not many assessment measures.

Analysis

- **Intelligence Preparation of the Environment**
- **Identify audience(s)**
- **Understand internal/external audience(s)**
- **Identify information needs and effective tools**
- **Develop assessment methodology**

Assessment

Qualitative/quantitative analysis

- **Are we achieving our objectives?**
- **Are we achieving our effects?**
- **Are measures correct?**
- **Reassess assigned plans/tasks**
- **Recycle back to policy development**

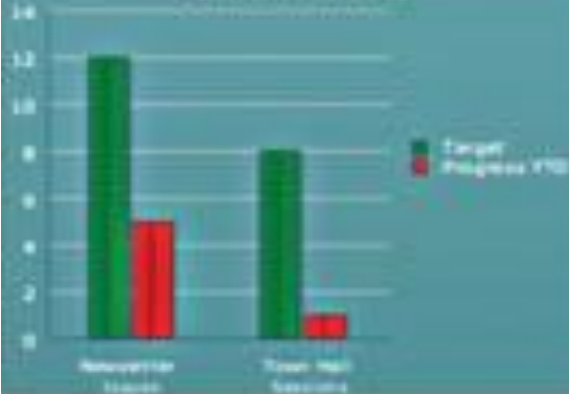


Period 3

Internal Communications Dashboard

Dashboard Supplied by
THE Lean AGENCY

Current Activities



Employee Engagement - by Country



Current Status

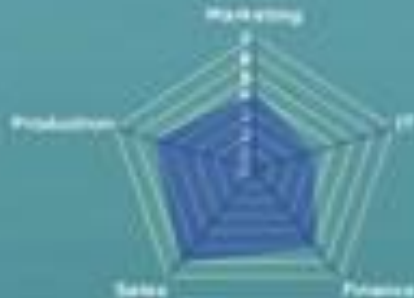
- Activity Programme ●
- Attitude ●
- Message Understanding ●
- Staff Turnover ●
- Productivity ●

Key

- No Action
- Normal Situation
- Be Aware
- Action Required

Key Message Understanding

We are a global company to work for



Intranet - Most visited Pages



Key Issues Summary

- Newsletter behind schedule
- Events over budget for Q2
- Next online poll imminent
- Absenteeism down over Q4

Engagement review required in Italy

Sales YTD



Productivity YTD



Staff Turnover YTD



Details

Project owner: Simon Kew
 Department: Internal Commis
 Date: February 2006
 Date last refreshed: January 2006

Common Methods

- ▶ Surveys
- ▶ Communication instruments/tools
- ▶ Online metrics
- ▶ Content analysis of documents, interviews, media stories
- ▶ Time series analysis
- ▶ What is most in use now?
- ▶ What needs the most significant investment?



Internal Measures

- ▶ Employee opinion surveys
- ▶ Empowerment, autonomy, trust
- ▶ 360° data
- ▶ Knowledge management surveys
- ▶ Use of wikis
- ▶ Communication audits

External Measures

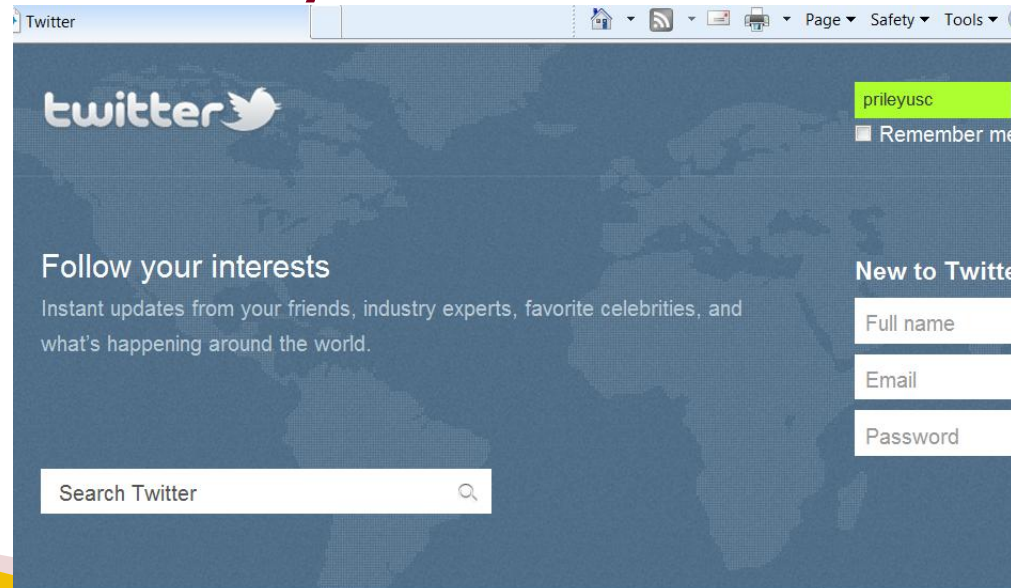
- ▶ Survey data available on the internet (Zogby.com)
 - Develop relationships with survey companies
 - Hire local companies off-shore
 - Partner with universities for on-shore information
 - Understand that errors can occur and repeated measures are necessary (e.g., fluctuations in polls)
- ▶ News aggregators
 - Visuals also important—for stakeholder analysis
 - E.g.,
<http://www.newseum.org/todaysfrontpages/>

Internet Survey Concerns

- ▶ Digital divide effect on “sampling”
- ▶ Computer literacy and older populations
- ▶ Visual differences due to equipment
- ▶ Not scientific (typically convenience or snowball samples)
 - Often cannot determine response rate
 - Often cannot determine generalizability
- ▶ Research currently underway to determine reliability

Qualitative Analysis

- ▶ Focus groups
- ▶ Narrative analysis
- ▶ Discourse analysis
- ▶ Twitter analysis



Web Measures

▶ Google trends



▶ Media Cloud

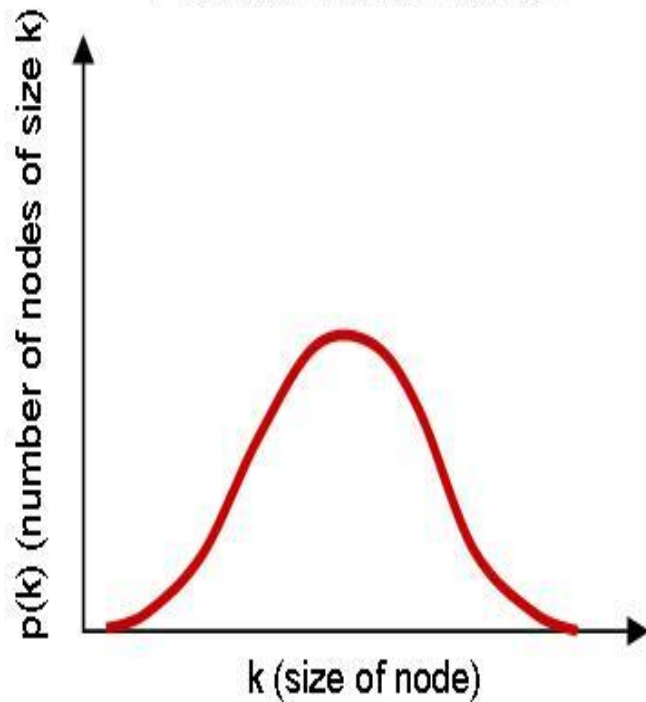


Website Analytics / KPIs

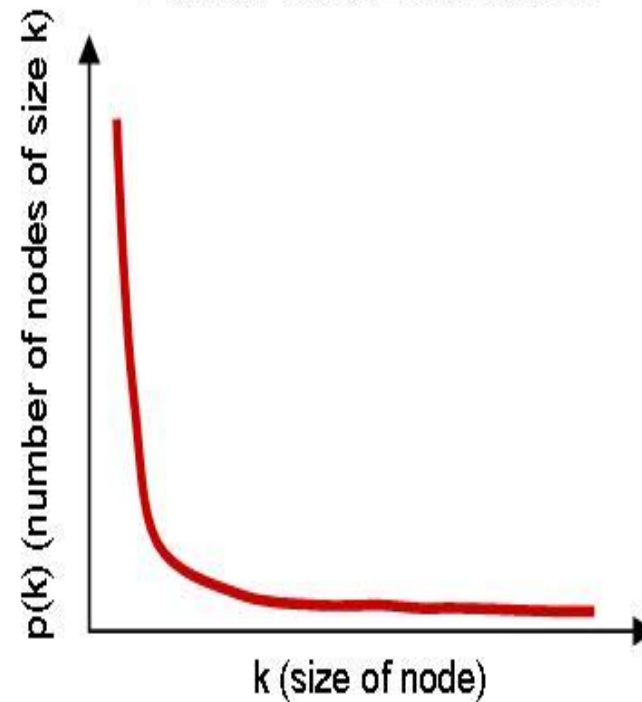
- ▶ Tracking via Alexa, or similar software for size of audience—SEO working?
- ▶ Check for impact—e.g., presence of information that migrates to traditional brand media and “aggregators with attitude”
- ▶ Check entry points—e.g., did they come through the home page or were they linked in from another site to a story or chart?
- ▶ How many RSS feeds? Bookmarks? Internal links?
- ▶ Page views per visit ratio is key metric for engagement
 - Time spent per page (a less reliable metric)
 - High—more than 5 min.
 - Med—30 sec. to 5 min.
 - Low—less than 30 sec.
- ▶ How many exit the site after search?
- ▶ Bounce rate—how long to get to page designated?
- ▶ Frequency and recency of high use visitor

Power Curve

Random Distribution



Power Law Distribution



Content Analysis

- ▶ Definition: A quantitative research instrument for the **systematic** description of content
 - Highly selective and structured method
 - Utilized on visual, aural or print media or text content
 - The rules of analysis are standardized to ensure a high degree of reproducibility
- ▶ One objective of the content analysis is to examine large amounts of content with statistical methods.
- ▶ Content analysis reduces the complexity of content as it brings out the central patterns of the coverage
- ▶ Software can make it semi-automated; media tracking

Network Measures Questions

- ▶ **What processes occur over time to create and change networks?**
 - What leads to the emergence of different organizational forms?
 - What types of communication networks form in the early, middle, and ending phases of the community?
- ▶ **How do communication networks predict interaction and other types of networks (e.g., exchange or financial)?**
- ▶ **How do cultural background and national identity influence the membership, structure and evolution of networks?**
 - Do these imported structures and patterns facilitate community, or contribute to divisiveness and conflict in the emerging global community?
 - Do males and females create different network structures or patterns of language use?

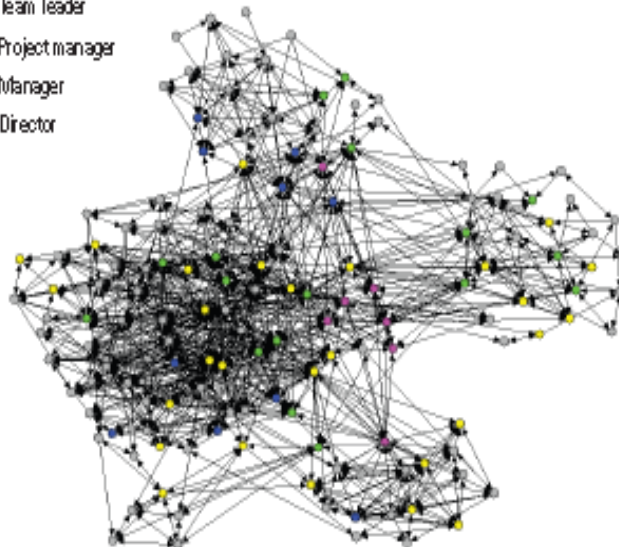
A more robust network

Disguised example of leading provider of outsourcing and IT consulting services, before and after initiative to improve connections, eliminate bottlenecks

Network measures	2003	2005	
Density: overall measurement of network connectedness	6%	8%	Higher density is better
Cohesion: average number of steps required to reach all network members	3.2	2.5	Lower cohesion is better
Centrality: average number of connections per person in network	9	13	Higher centrality is better

Before: network in 2003¹

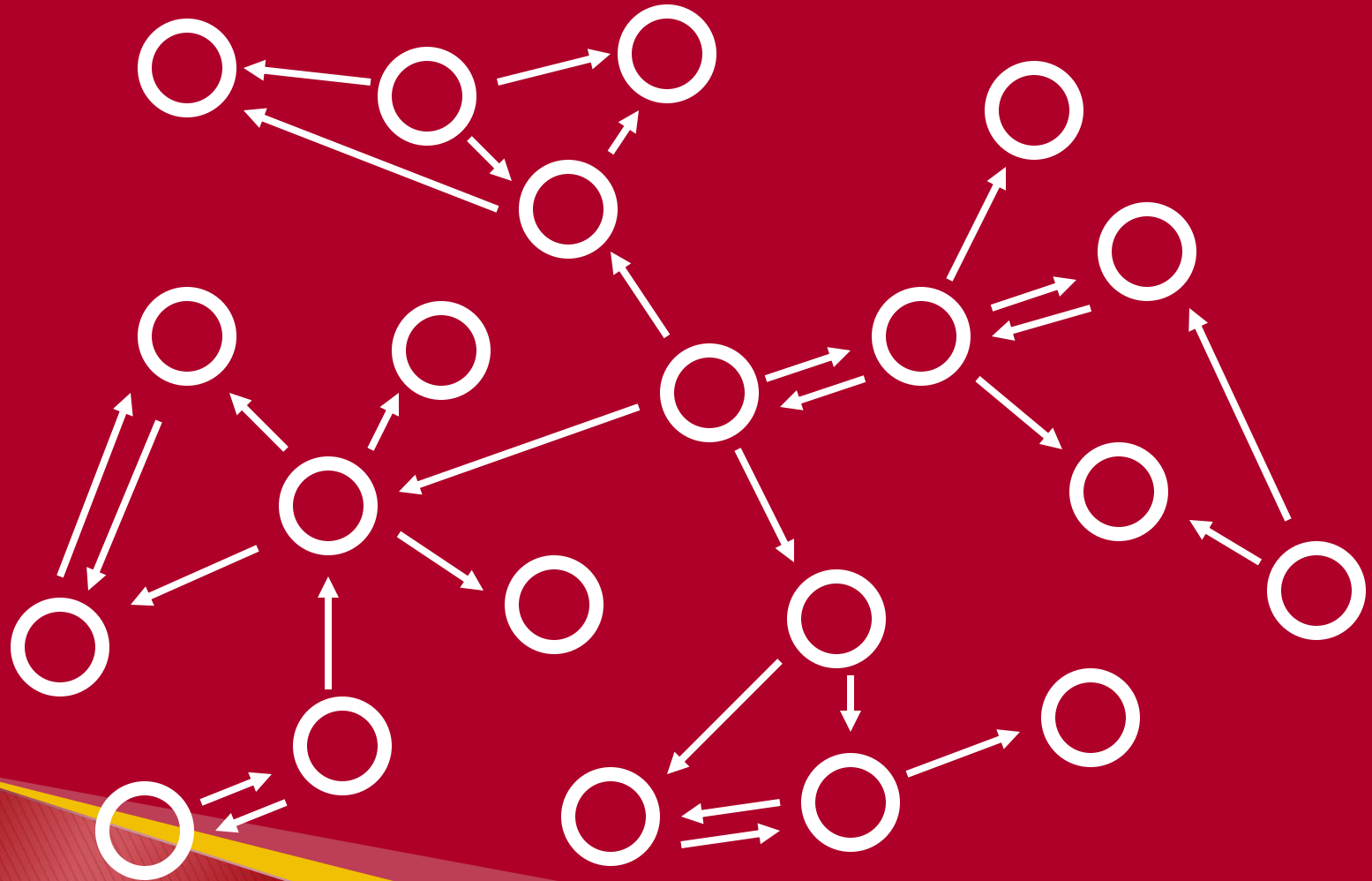
- Individual contributor
- Team leader
- Project manager
- Manager
- Director



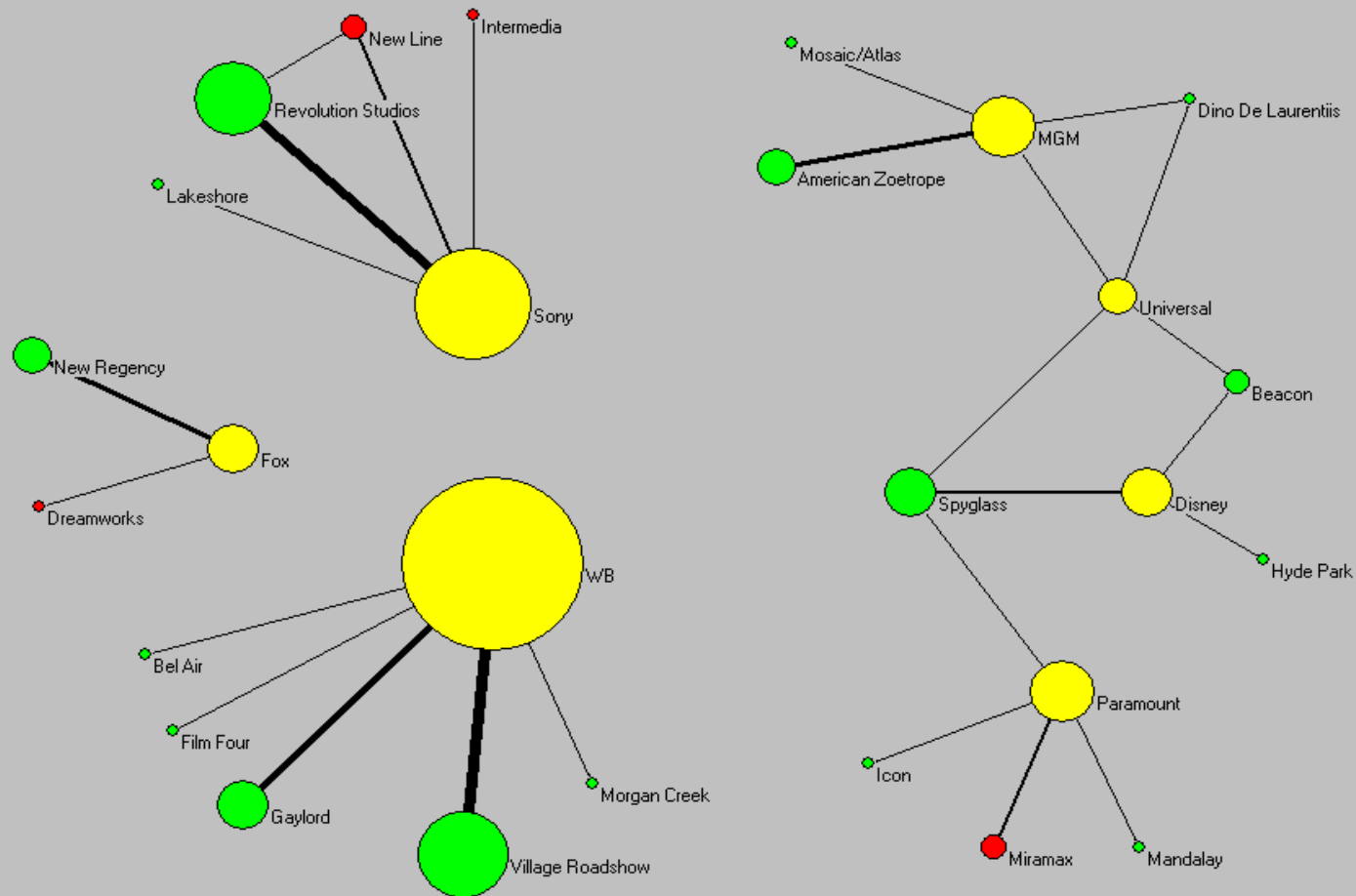
After: network in 2005¹



Social Network Analysis



Movie Studio Networks



Data and Analysis

- ▶ Can include transcripts of interaction (e.g., White House study)
- ▶ Links to demographic data (e.g., gender)
- ▶ Identification of networks from patterns of interaction
- ▶ Tools
 - Network analytical techniques (UCINET, p*)
 - Automated content analysis
 - Bot tracking
 - Speaker identification, linking speakers across multiple dialogs, detecting expertise, tracking speaker's opinions, emotions

Network Outcomes

- ▶ HIV/AIDS Networks
 - Studied the evolution of AIDS NGOs over a 15 year period
 - Found the birth and death of NGOs and the shape of the overall network were linked to IGO policies and changes in IGO populations
 - The addition and deletion of nodes in the networks was related to media frames and coverage
- ▶ Network comprised of radio stations, record companies, and independent promoters
 - Independent promoters broker relations across “holes” in the network between record companies and radio stations.
 - Explains the durability of the institution in the face of resistance from both record labels and radio stations

Why Mobile Social Network Analysis Has An Important Future

- ▶ People are rarely far from their phones
- ▶ Workplace networks that are now office PC based will increasingly become mobile

Possible Measures/Metrics

Analysis

Assess

What measures do you already have?

What measures will you need to create?

What measures will be the greatest challenge?

What are your final metrics of success?

References

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