

# **Peter Pennefather**

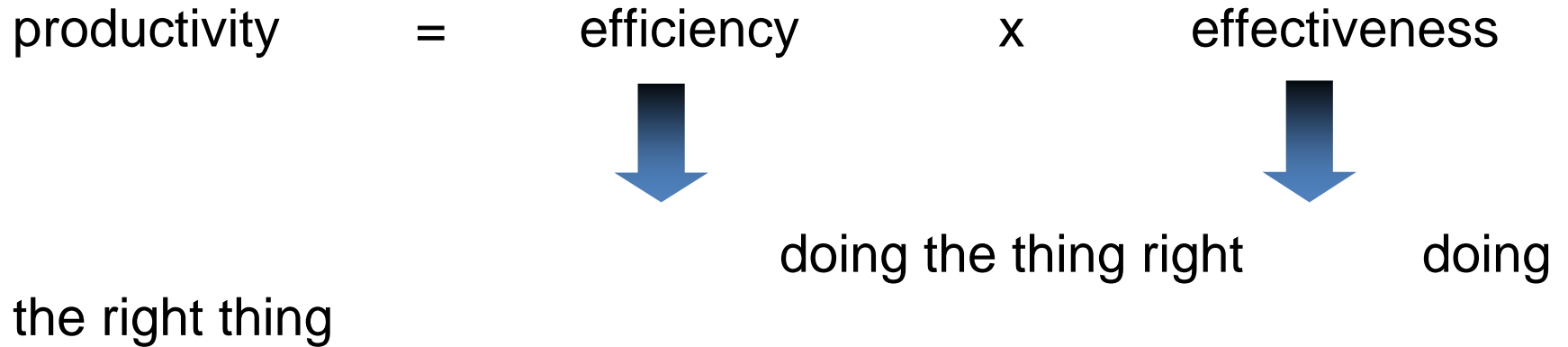
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**Researcher/CIO Partnership in Delivering e-  
Science, e-Research, and e-Dialogue:  
*Knowledge Mobilization For and By the People***

***Information without communication is no information is at all***  
(Richard Saul Wurman )

***Data data everywhere , and not a byte to eat***  
(annon.)

# Faster, Better, More



# Dynamic Tension Between Managers and Developers of CyberInfrastructure

- Management delivers required information services according to operational plan executed within fixed budget
- Researchers experiment and reinterpret fundamental principles upon which cyberinfrastructure plans are based
- Even established operational services require reflective systems research in order to maintain quality and relevance and should be continuously improved.
- But management and development often disagree on whether it is developer driven projects or institution driven programs that are most important

# Distinct Role for CIO's in "Not-for Profit" Knowledge-Based Enterprises

- In "for-profit" enterprises strategic executive decisions regarding information resource management are as important to generating ROI as Human and Financial resource management.
- Prudent "for-profit" risk management requires that appropriate expertise is applied to strategic management of information technology for maximizing profit (Price - Costs = Returns)
- In "not-for-profit" enterprise ROI is non-financial and measured in terms of a basket of public goods and services generated through effective and efficient research and development. ROI has multiple bottom lines that are more accountable than predictable. (Price - Returns = Costs)
- In "not-for-profit" enterprise, information about effectiveness and efficiency research and development activities as important as the actionable outcomes of those activities and is exchangeable for operating and development resources and investments.

*A partnership in developing and accounting for the production of cyberinfrastructure public goods may provide a venue for building on the tension between developers and managers of public cyberinfrastructure*

# **Products of public funded use-inspired research are global public goods**

- Public goods fail to exhibit consumption scarcity.
- Decision-makers who generate public goods do not bear all of the costs or reap all of the gains from their use.
- Once produced public goods should be should be made widely accessible

# **New Types of Research and Dialogue Needs In Public Knowledge-based Enterprises**

Students and researchers are increasingly becoming concerned about complex problems facing society. These problems require institutions to support qualitative dialogue to generate actionable ideas and hypotheses as well as the quantitative research to validate the soundness and feasibility of new ideas and concepts

Examples:

- How to ensure that health care is delivered in a collaborative and patient centred manner
- How to prevent harm caused environmental chemicals
- How to regulate climate change
- How to end poverty now
- How to minimize burden of preventable disease
- How to support informed democratic dialogue

# **New types of trainees and researchers are appearing in academia to address these complex problems**

- Diverse spectrum of public clients/stakeholder/funders interested in “non-industrial” knowledge translation and knowledge mobilization
- This knowledge mobilization stimulates the economy and national bragging rights (competitiveness) by creating services that achieve societal goals and deliver common goods rather than shareholder profits
- The research that drives this mobilization needs new metrics of success and new community/sector based research venues
- Increasingly research is carried out by part-time graduate students already embedded in various service sectors (Health Care, Education, Government, Engineering) increasingly working with part-time researcher
- This is a form of distributed collaborative academic research is driven by a reverse co-op education movement where release time is given to sector employees to go back to academia to learn new ways of dealing with sector specific problems

# Knowledge Translation & Practice Research may provide a venue for linking these new types of researchers and trainee through cyberinfrastructure

- Knowledge Translation is: *the exchange synthesis and ethically sound application of knowledge-within a complex system of interactions among researchers and users to accelerate the capture of the benefits of research* (CIHR)
- Knowledge Translation is not continuing education or professional development course, it is not translational research. It is not a one way process
- It is an action cycle focused on optimizing effective uptake and use of knowledge
- Practice research is a form of KT aimed at selective improvement of practice through systematic, evaluated application of knowledge and assessment of barriers
- Practice Research represents research *for and by the people*