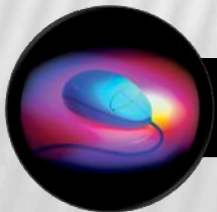




Ally Gill, UKSMA Conference 2008

# THE TROUBLE WITH DASHBOARDS



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# OBJECTIVES

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## ❑ Concepts

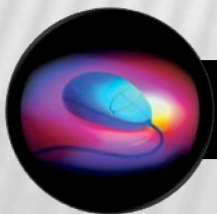
- Understand what we really mean when we talk about dashboards

## ❑ Principles

- Review some good practices involved in establishing and using a dashboard

## ❑ Pitfalls

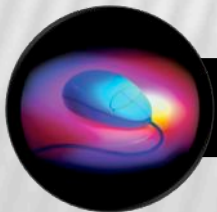
- Highlight the key pitfalls likely to trap the dashboard initiators, owners, designers and users



## THE TROUBLE WITH DASHBOARDS

*“We are drowning  
in information, but  
starved of  
knowledge”*

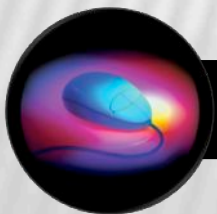
ANON







## TROUBLE #1 – A MATTER OF CONVENIENCE



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# DEFINITION

## dashboard |ˈda sh ˌbôrd|

Noun : the panel facing the driver of a vehicle or the pilot of an aircraft, containing instruments and controls

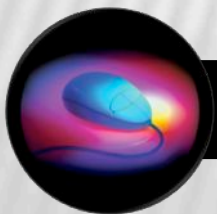
## instrument |ˈinstrəmənt|

Noun : 1 a tool or implement, esp. one for delicate or scientific work : a surgical instrument | writing instruments; a thing used in pursuing an aim or policy; a means : drama as an instrument of learning.  
2 a measuring device used to gauge the level, position, speed, etc., of something, esp. a motor vehicle or aircraft.

## control |kənˈtrōl|

Noun : 1 the power to influence or direct people's behaviour or the course of events : the whole operation is under the control of a production manager | the situation was slipping out of her control ; the ability to manage a machine or other moving object : he lost control of his car | improve your ball control; the restriction of an activity, tendency, or phenomenon : pest control; the power to restrain something, esp. one's own emotions or actions : give children time to get control of their emotions; (often controls) a means of limiting or regulating something : growing controls on local spending; a switch or other device by which a machine is regulated : the volume control.

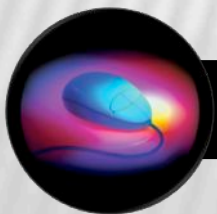
Source – new Oxford American dictionary/Apple dictionary



# DIGITAL DASHBOARD

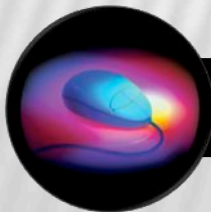
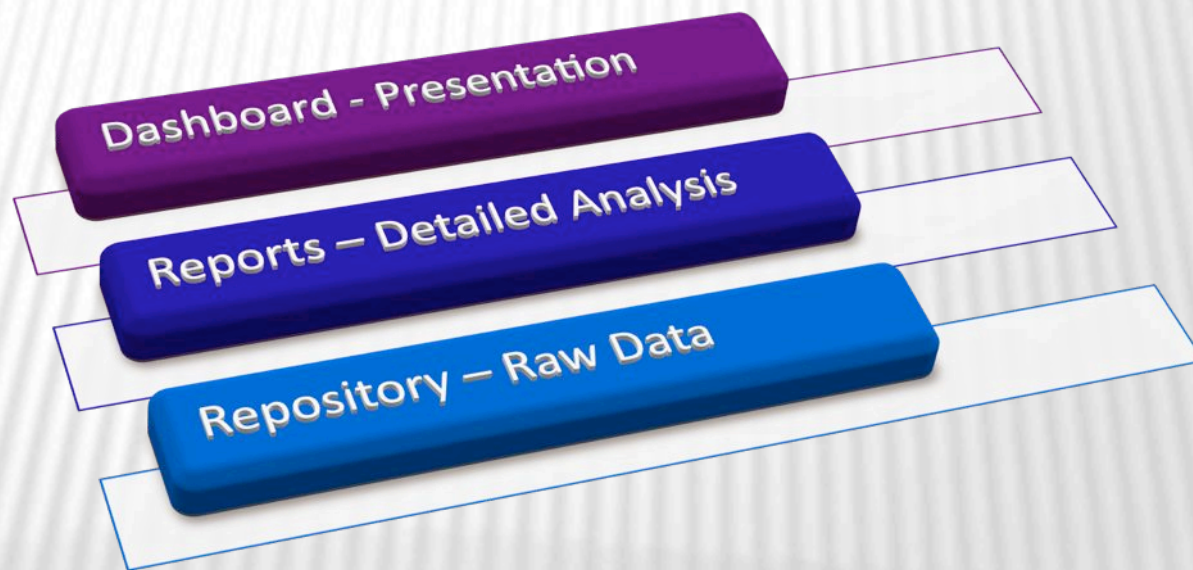
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- ❑ A digital dashboard, also known as an enterprise dashboard or executive dashboard, is a **business management tool** used to **visually** ascertain the **status** (or "health") of a business enterprise via **key business indicators**.
- ❑ Digital dashboards use visual, **at-a-glance** displays of **data** pulled from disparate business systems to provide **warnings, action notices, next steps, and summaries of business conditions**.



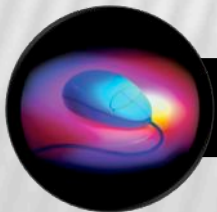
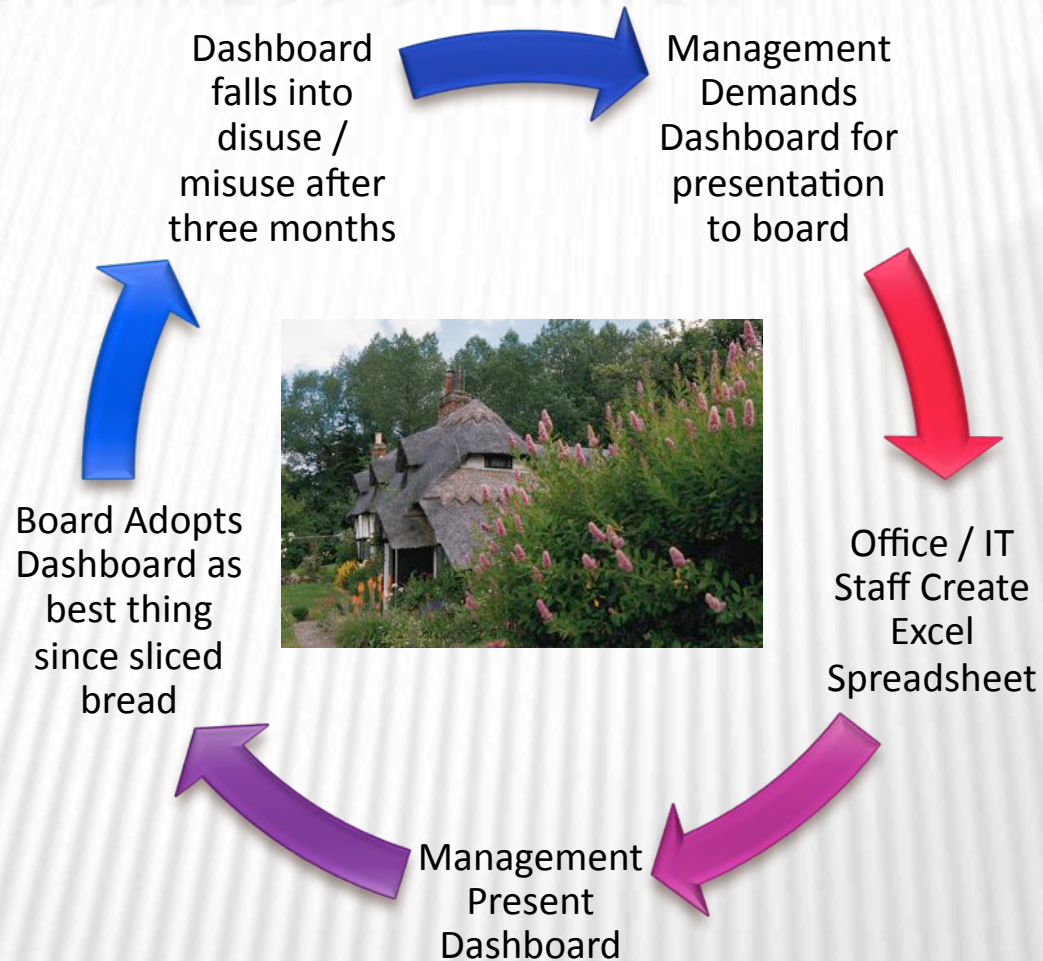
# REPOSITORIES, REPORTS AND DASHBOARDS

- ❑ We seem to use the terms interchangeably
- ❑ Very often we combine aspects of all three into an entity and call it a dashboard



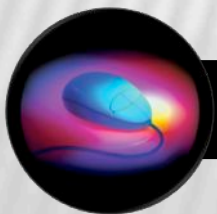


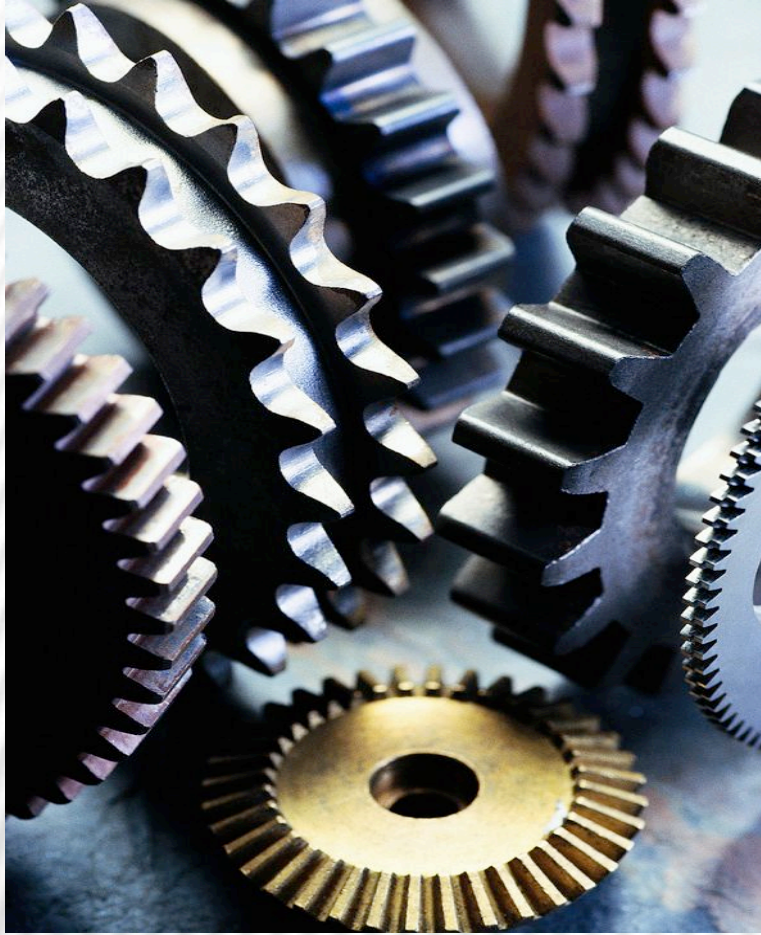
# TYPICAL BUSINESS SCENARIO



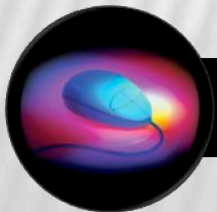
# TROUBLE #1 – A MATTER OF CONVENIENCE

- ❑ Easy to use office tools lull us into bad working practices
- ❑ Uninformed but well-meaning managers initiate the problem through unrealistic requests
- ❑ Uninformed but eager-to-please staff fail to push back and build beautiful creations but poor business solutions





## TROUBLE #2 – THE SYSTEM AS A WHOLE

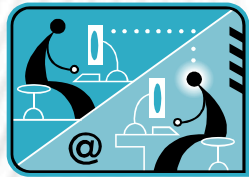


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# DASHBOARD CONCEPTS

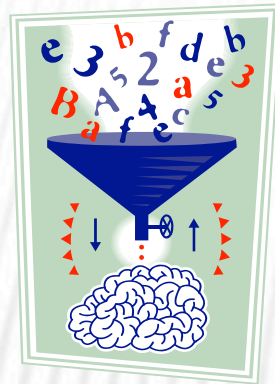
- A Dashboard is a **view** into an integrated **system** of critical activities



**Input/Collection**



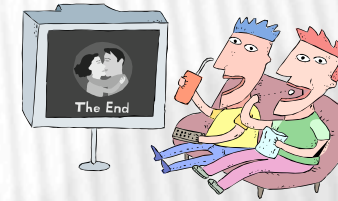
**Data Storage**



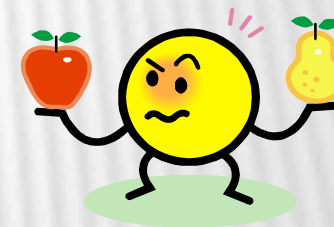
**Data Manipulation**



**Data Analysis**



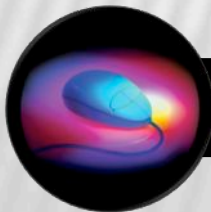
**Data Presentation**



**Interpretation &  
Decision Making**

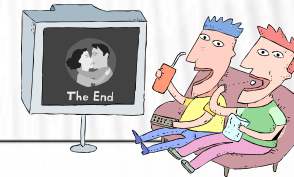
**Rules and Definitions**

- All these elements need to be considered, defined and designed

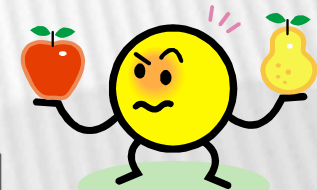


# ARCHITECTURE AND FUNCTION

Dashboard - Presentation

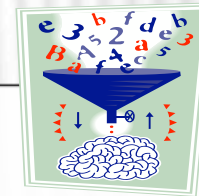


Data  
Presentation



Interpretation &  
Decision Making

Reports – Detailed Analysis



Data Manipulation

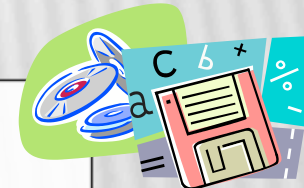


Data Analysis

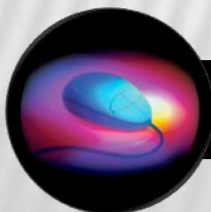
Repository – Raw Data



Input/Collection



Data  
Storage



# MAKERS AND SHAKERS

## Dashboard - Presentation

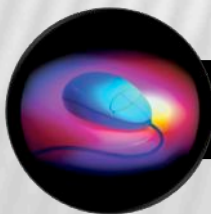
- SENIOR MANAGERS, BUSINESS USERS

## Reports – Detailed Analysis

- ANALYSTS, MANAGERS,

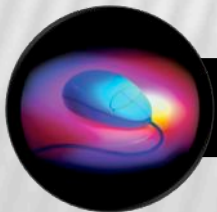
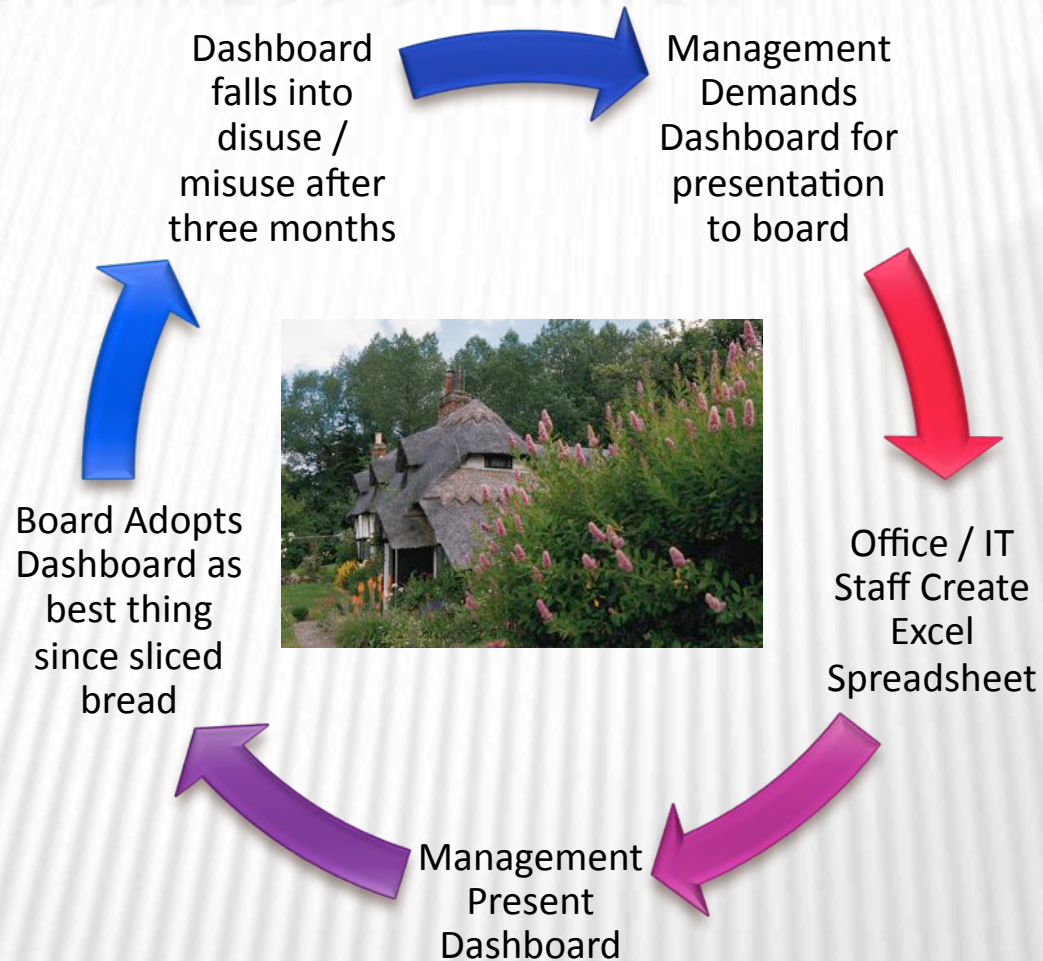
## Repository – Raw Data

- SYSTEMS, ENGINEERS, MANAGERS

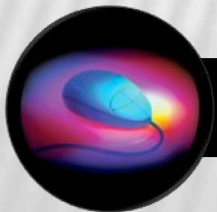
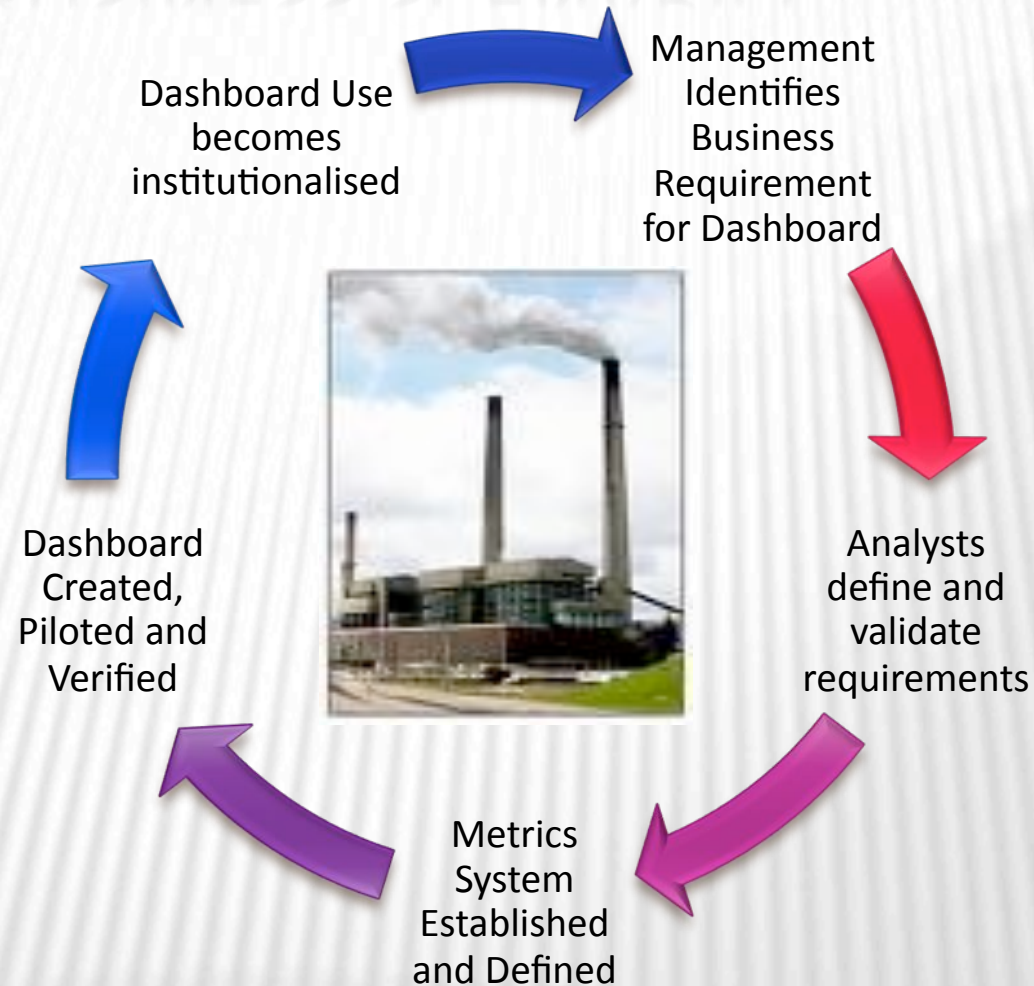




# TYPICAL BUSINESS SCENARIO

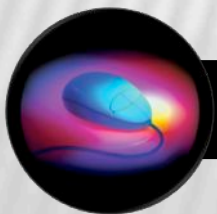


# REFINED BUSINESS SCENARIO



## TROUBLE #2 – THE SYSTEM AS A WHOLE

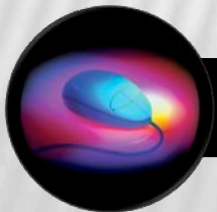
- ❑ Building a Dashboard is easy – to build a useful Dashboard needs disciplined business and systems engineering
- ❑ The Dashboard is the output from a complex chain of events, activities and people
- ❑ Dashboard development needs to move from cottage industry to industrialisation







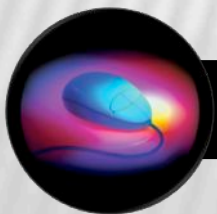
## TROUBLE #3 – MEETING THE NEED



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# UNDERSTAND THE REQUIREMENT

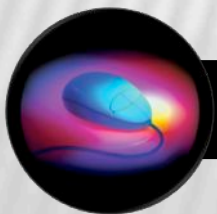
- ❑ What's the purpose
- ❑ How's the dashboard going to be used
- ❑ Who has access to the dashboard
- ❑ Dashboard needs to serve the needs of the business not the egos of its users



# UNDERSTAND YOUR AUDIENCE

---

- ❑ Data means different things to different sets of people
- ❑ Users need to be taught how to use the dashboard and how to interpret dashboard data consistently and effectively
- ❑ Dangers of unused elements of dashboard



# THERE ARE BOOBY TRAPS AT EVERY TURN

## ❑ Dysfunctional behaviour :

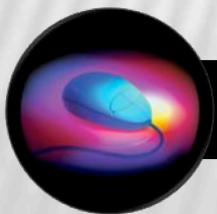
- Behaviour aligned to achieving KPIs at expense of good business decisions

## ❑ Apportion of blame :

- KPIs used to “punish” staff

## ❑ Misinterpretation :

- Poor decisions based on misunderstanding of data





# THERE ARE BOOBY TRAPS AT EVERY TURN

## ❑ Failure to act on KPIs :

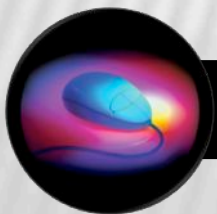
- KPIs ignored until preventative action is too late

## ❑ Wrong users :

- PMs or support staff don't have access to management data

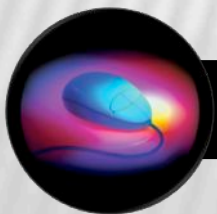
## ❑ Over-engineering a solution :

- Too much detail buries the real information



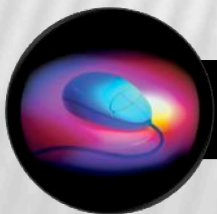
## TROUBLE #3 – MEETING THE NEED

- ❑ A dashboard is a management tool to facilitate the decision making process and needs a Defined Purpose and Audience
- ❑ Decisions are required at every level of the enterprise and different views of the same data may be required to make decisions
- ❑ The target audience needs to understand their role and the information being presented





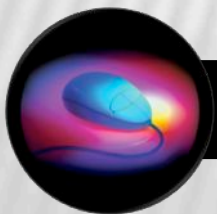
## TROUBLE #4 – MAKING THE DATA COUNT



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# PROBLEMS WITH METRICS PROGRAMMES

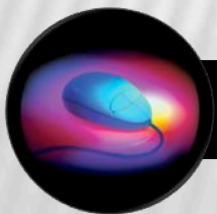
- ❑ Metrics programmes must have management commitment
- ❑ Inappropriate scope – too much, too soon v too little, too late
- ❑ Inappropriate or ambiguous measures
- ❑ There are People issues involved





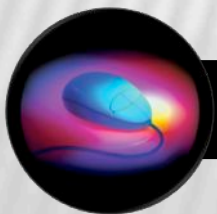
# DASHBOARDS NEED GOOD DATA

- ❑ Dashboards must align with existing metrics and measurement programmes
- ❑ Cost of data collection must not exceed its value
- ❑ Data quality assurance is paramount for successful dashboard use
- ❑ Users must be taught not to take information at face value



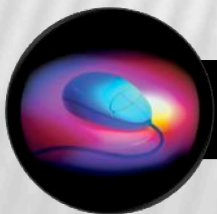
## TROUBLE #4 – MAKING THE DATA COUNT

- ❑ A dashboard can only be useful if the data is of high quality
- ❑ Verification and feedback loops must be in place to control rogue data before it causes trouble
- ❑ Measures and their analyses need to be consistent across the scope of the dashboard – ideally at the enterprise level



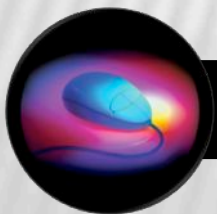


## TROUBLE #5 – PACK UP YOUR TROUBLES



## TROUBLE #5 – PACK UP YOUR TROUBLES

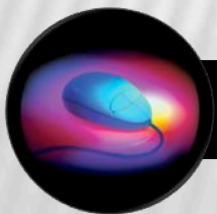
- ❑ Dashboard Building is not Trivial
  - Consider the whole system, not just the end-point
- ❑ Don't Build a dashboard when a report will do
  - Reports capture the moment – dashboards show the trends
- ❑ Target the right sets of Users and educate the
  - Who's going to use the dashboard and how?





## TROUBLE #5 – PACK UP YOUR TROUBLES

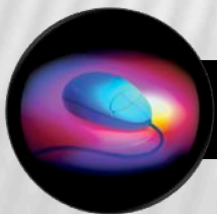
- ❑ Use the dashboard to help decision making
  - A good dashboard will facilitate decision making if it is well designed and used properly
- ❑ Aim for goodness, not quantity
  - Remove spurious information, and revise content as necessary
- ❑ Focus on consistent and continuous usage
  - Industrialise your dashboards across the business



## THE TROUBLE WITH DASHBOARDS

*“In this age, which believes that there is a short cut to everything, the greatest lesson to be learned is that the most difficult way is, in the long run, the easiest”*

HENRY MILLER



For more information please contact :

Ally Gill,  
Owner and Principal Consultant,  
ALLYGILL.CO.UK

[ally@ally.gill.co.uk](mailto:ally@ally.gill.co.uk)

[info@ally.gill.co.uk](mailto:info@ally.gill.co.uk)

[www.allygill.co.uk](http://www.allygill.co.uk)

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## THE TROUBLE WITH DASHBOARDS

