


How to Demystify IT for Your CEO

Harwell Thrasher, MakingITclear, Inc.
 Author of *Boiling the IT Frog*
How to Make Your Business Information Technology Wildly Successful Without Having to Learn Anything Technical



Technology versus Magic

- “Any sufficiently advanced technology is indistinguishable from magic.” – Arthur C. Clarke
- In Magic, we expect
 - A mystical language
 - The impossible
- Therefore, we
 - Don't expect it to follow logic
 - Don't apply our common sense.


© 2003-2009 MakingITclear, Inc. All Rights Reserved. 2

Technology as Magic can get you in trouble

- Unreasonable trust
 - DEC MRP example: Order quantity calculation
- Illogical thinking prompted by computer systems
 - Best Buy example: exchanging a DVD
- The attraction of wizardry
 - Delta Airlines example: changing a ticket

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 3

Gartner “Hype Cycle” Example



Source: Gartner “Understanding Gartner’s Hype Cycle, 2008” by Jackie Fenn and Alexander Lindes (June 2008)
 © 2003-2009 MakingITclear, Inc. All Rights Reserved. 4

Two Different Aspects of “Magic”

1. “Magic” systems make people give up their common sense
2. Inflated expectations of new technology make people distrustful when they discover the reality of the technology

- Moral 1: Stay grounded and be skeptical. There is no real magic in IT.
- Moral 2: If the basic principles underlying a technology or system can be clearly explained to the users, then false expectations can be prevented.

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 5

If IT isn't Magic, then what is it?

- Hint: It isn't about software, hardware, networks and systems

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 6

MakingITclear® *How to Demystify IT for Your CEO*

IT is all about:

- Infrastructure,
- Projects,
- Maintenance,
- Strategy, and
- Trust

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 7
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Trust is the Most Important

- If your IT organization doesn't have a mutually trusting relationship with its users/customers,

then IT won't be successful,

no matter how successful you are with every other aspect of IT

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 8
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

How IT Can Build Trust

- Clarify; simplify; use business language
- Under-promise and over-deliver
- Be consistent
- Think like your customers
- Communicate both good and bad news

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 9
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

How Business Can Build Trust

- Focus on:
 - Results
 - Process changes you would like to achieve
- Suggest ideas on how to do something in IT, but recognize that they may not be applicable
- Don't over-specify an IT solution
- Motivate an IT organization by measuring its contribution to *business* success.

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 10
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

IT is all about

- **Infrastructure,**
- Projects,
- Maintenance,
- Strategy, and
- Trust

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 11
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Infrastructure Secret 1

- There is no "right" amount of money to spend on infrastructure
- What companies spend on hardware and software is directly related to
 - Risk
 - The depth of their pockets

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 12
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Infrastructure Secret 2

- The fewer Information Technology products you have, the better off you'll be, as long as you've chosen good products.

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 13
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Infrastructure Secret 3

- Almost any software and hardware will work in the short term, but you'll see the difference in the long term.
 - Difference appears in training cost, support cost, compatibility with other software and hardware, scalability to larger volumes, ease of integration with other software and hardware, and in the viability of the vendor

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 14
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Infrastructure Secret 4

- If you're going to use off-the-shelf software, then use the business processes that come with it.
 - Differentiate between a reason (why you are a certain way) and an excuse (why you stay that way)

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 15
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

IT is all about

- Infrastructure,
- **Projects,**
- Maintenance,
- Strategy, and
- Trust

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 16
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Two Ways to Select Projects

- Top Down
Choose a project because it contributes to a major business goal
- Pick the Best
Compare all projects and choose the ones that have the highest number score (e.g., ROI)

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 17
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

"Pick the Best" is Difficult

- ROI only works in theory
- Project interdependency causes problems when you approve a project but not its prerequisites
- Infrastructure improvement projects usually hard to justify
- Development estimates are usually wrong

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 18
www.makingITclear.com

Project Success is Uncommon

- In 2006,
 - Only 35% of software projects were completed on time and within budget
 - 19% of software projects were abandoned
- In 1994,
 - 16% of software projects were completed on time and within budget
 - 31% of software projects were abandoned

Source: Standish Group studies, and 3/1/2007 *SD Times*

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 19

Biggest Reasons for IT Project Failure (in my experience)

- Starting the wrong project
- Not including prerequisite steps
- Going for home runs instead of base hits
- Project duration greater than the job tenure of the sponsoring executive
- "Gathering" requirements instead of *negotiating* them
- Not enough contingency planning

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 20

Once you've picked a project, how do you make it succeed?

- QCSS
- Simplicity

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 21

QCSS - Critical to Project Success

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 22

The variables have non-linear relationships

- Examples:
 - Having a baby
 - Painting a room

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 23

The curves can reverse

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 24

Example of real life non-linearity on a project

Peak Staff	Schedule (Months)	Cost (\$)	Defects Remaining
6	13.6	416,000	6
9	12.3	623,000	9
14	11.3	875,000	14
24	10.2	1,300,000	25
33	9.5	1,700,000	33
66	8.3	3,000,000	66

Source: The Software Genome Council
© 2003-2009 MakingITclear, Inc. All Rights Reserved.

Key Messages from QCSS

- Users must emphasize the QCSS variables that are most important, and accept the outcome on the other variables
- My own recommendation:
 - Do things with high quality in small steps
 - High quality
 - Small scope
 - Therefore short schedule and reasonable cost

© 2003-2009 MakingITclear, Inc. All Rights Reserved.

Simplicity – Another Key to Project Success

- There is a lot of complexity in IT
- But things are more complex than they have to be
- The complexity only increases the magic and wizardry of the IT organization, and does nothing for the customers

© 2003-2009 MakingITclear, Inc. All Rights Reserved.

Simplicity Recommendations 1

- Focus on making things simpler. Keep asking "Is there a simpler way?"
 - Sometimes the easiest techniques are the best
Example: paper mock-ups of computer screens used for user prototyping
- Follow the 80-20 rule in systems design

© 2003-2009 MakingITclear, Inc. All Rights Reserved.

Simplicity Recommendations 2

- Keep project and system scope in check
 - Scope hard to relate to "common sense" - sometimes small scope change can have huge impact on the project
 - Building design example: moving a bathroom
- If you have to increase scope in one area, try to find another area to decrease

© 2003-2009 MakingITclear, Inc. All Rights Reserved.

Simplicity Recommendations 3

- Build systems in layers, with standardized interfaces between the layers
 - Makes technology upgrading easier
 - Makes system-to-system integration much easier

© 2003-2009 MakingITclear, Inc. All Rights Reserved.

MakingITclear® *How to Demystify IT for Your CEO*

IT is all about

- Infrastructure,
- Projects,
- **Maintenance,**
- Strategy, and
- Trust

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 31
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Maintenance

- Like farming: uncultivated fields don't need maintenance, but once you add more cultivated land, you have to spend effort every year to keep it up

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 32
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Projects Decline over Time as a Percent of Total IT Budget

The graph shows three lines over time. The 'Projects' line (red) starts at 80% and declines to approximately 30%. The 'Infrastructure' line (green) starts at 20% and rises to approximately 45%. The 'Maintenance' line (blue) starts at 0% and rises to approximately 25%.

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 33
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Hardware Maintenance

The graph shows 'Original Capability' on the y-axis (0% to 120%) and 'Time' on the x-axis. A red line starts at 100% and curves downwards to approximately 30%. A blue arrow labeled 'Effort' points upwards from the 30% mark.

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 34
www.makingITclear.com


MakingITclear® *How to Demystify IT for Your CEO*


Software Maintenance

The graph shows 'Original Capability' on the y-axis (0% to 350%) and 'Time' on the x-axis. A red line starts at 100% and rises linearly to approximately 300%. A blue arrow labeled 'Effort' points upwards from the 100% mark.

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 35
www.makingITclear.com

MakingITclear® *How to Demystify IT for Your CEO*

Do we expect this sports car 

To be capable of transforming into this van if our business requirements change? 

Not for hardware,
But people expect that for company software!

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 36
www.makingITclear.com

IT is all about

- Infrastructure,
- Projects,
- Maintenance,
- **Strategy**, and
- Trust

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 37

Strategy

- The element of IT most often forgotten
- Think of systems as buildings, and strategy as city planning
- IT Strategy is what differentiates average IT from great IT

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 38

Why is IT Strategy so Important?

- Because IT People are Focused on the *How* – not the *What*
- So most IT errors are caused by doing the wrong things, not by doing things wrong

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 39

What does an IT strategy look like?

```

graph TD
    BO[Business Objectives] --> IPR[IT Plan or Roadmap]
    ITP[IT Policies & Principles] --> IPR
    ITS[IT Standards] --> IPR
    ITS --> TA[Technology Architecture]
    TA --> IPR
  
```

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 40

Recap

- Magic in IT isn't a Good Thing
- Without Trust, IT is Useless
- The Four Biggest IT Infrastructure Secrets
- Why ROI Isn't the Best IT Project Selection Method
- The Six Biggest Reasons for IT Project Failure
- QCSS & Simplicity to focus your project efforts
- Software Maintenance isn't Like Other Maintenance
- The Five Key Components of an IT Strategy

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 41

Q & A

- For more on the material in this presentation, see my book, available on Amazon.com and on Amazon's Kindle wireless reading device
- For additional information (including book lists and white papers) and for a free subscription to my monthly email newsletter, visit www.makingITclear.com
- Additional questions or inquiries to: Harwell Thrasher harwell@makingITclear.com

© 2003-2009 MakingITclear, Inc. All Rights Reserved. 42