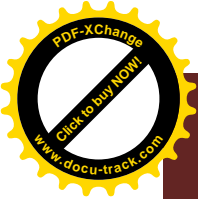
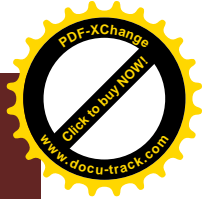


Requirements are 15%  
Complete and 7% Correct



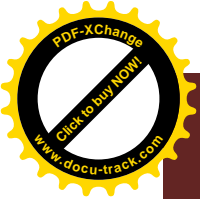
# Agenda

- About Eric
- What is a requirement?
- Requirements vs. features
- Customer expectations vs. user needs
- The 13 User Needs



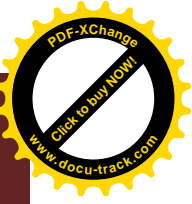
# About Eric

- Over 20 years experience in electronic communications:
  - Layout
  - Design
  - Usability
  - Publishing
- 15 years experience in web consulting:
  - Internet
  - Intranet/Extranet
  - CMS
  - CRM
  - Project Management



# Our Services

- eStrategy
- Portal Governance
- Process Discovery, Re-Engineering, Workflow Design
- Business Analysis
- Information Architecture
- Taxonomy
- Enterprise Document Management
- Project Management
- Change Management



# Verticals

- Education (School Boards, Colleges, Universities)
- Municipal and Provincial Government
- Oil and Gas
- Media/Broadcasting
- Financial Services (Insurance, Mutual Funds, Investments)

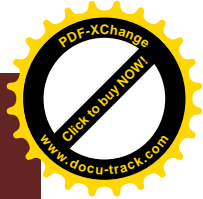


# Goals for this session

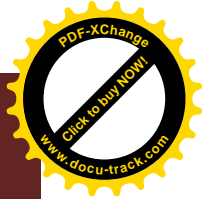
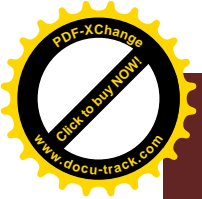
- In this session, you will:
  - Understand the cascading effect of incomplete requirements
  - Learn the difference between Customer Expectations and User Needs
  - Learn the 13 user needs
  - Learn to create clear, user-centric requirements lists that can be aligned to customer expectations

# Perceptions...

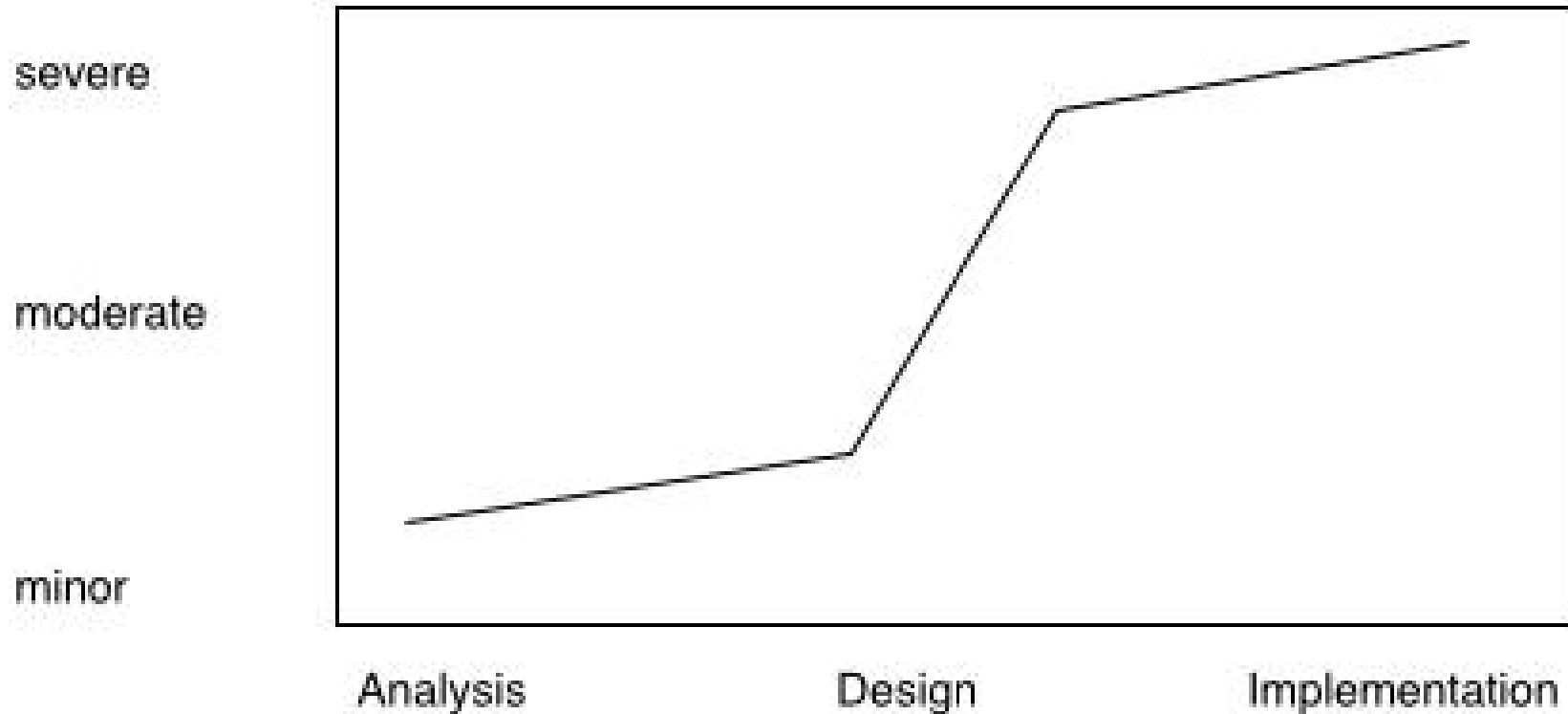
	DEVELOPERS	DESIGNERS	PROJECT MANAGERS	QA
SEEN BY DEVELOPERS				
SEEN BY DESIGNERS				
SEEN BY PROJECT MANAGERS				
SEEN BY QA				

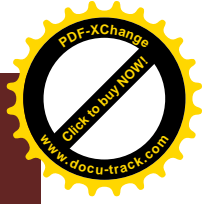


# Why do projects fail?



# Cost of change during the project





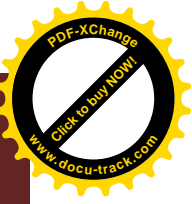
# What is a requirement?

- It is a statement describing either
  - 1) an aspect of what the proposed system must do, or
  - 2) a constraint on the system's development
- In either case it must contribute in some way towards adequately solving the customer's problem or addressing user needs
- The set of requirements as a whole represents a negotiated agreement among the stakeholders
- *Just because a requirement is declared doesn't mean it's going to be in scope!*



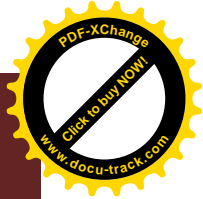
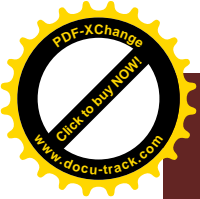
# What should a requirement do?

- Increase efficiencies
- Decrease duplication
- Offer enhanced service users
- Make it easier to buy
- Enhance service delivery
- Satisfy customer expectations
- Help the organization make money!



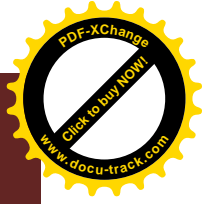
# Question:

- What is a feature?



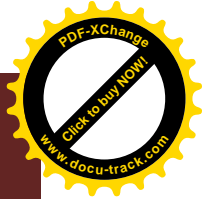
# Requirement vs. Feature

- Feature:
  - A feature is a set of logically related requirements that allows the user to satisfy an objective. A feature tends to be a higher-level objective than a requirement.
- Requirement:
  - A requirement is a capability that a product must possess to ultimately satisfy a customer need or objective. A requirement tends to be more granular, and is written with the implementation in mind.



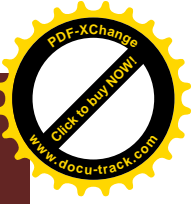
# Requirement vs. Feature

- *Feature:*
  - Online Shopping Cart
- *Requirements:*
  - User shall be able to add books to the online shopping cart
  - User shall be able to remove books from online shopping cart
  - User shall be able to view a list of books in the online shopping cart at any time
  - User shall be able to start the checkout process from the shopping cart



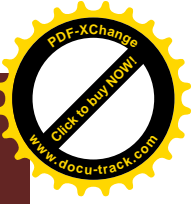
# Customers vs. Users

- Customers:
  - Either internal or external
  - Customers have expectations
    - business process improvements, increase revenue, increase market share, etc.
- Users:
  - Need the solution (it's features) to help customers meet those expectations.



“Requirements are  
15% complete and 7% correct.”

*Elemer Magaziner,  
© Project Linguistics International*



# User Need Categories

- Classifies User Needs by viewpoint and suitability characteristic (is there a user need to be addressed?)

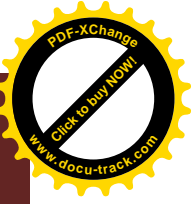


User Need	Detail
Functional	Automate a manual step of the process
Usable	Shrink the learning curve and reduce user error
Capable	Assist in accomplishing the users' workload
Secure	Protect the process and its outputs from unauthorized access
Reliable	Inform the user when the solution does or will not perform as required
Flexible	Accept changes to usage conditions and configurations without additional development
Productive	Reduce any resources consumed by users while interacting with the system
Efficient	Reduce any resources consumed by the system
Available	Provide the user with time and place access to the system
Maintainable	Assist the user in recovery when the system fails
Effective	Be considered the solution choice by users
Responsive	Respond to users' commands with out excessive delay
Robust	Assure the solution not only works well, but also fails well in non-nominal and unexpected situations (For IT solutions, implementing robustness capabilities typically consumes 85% of development and testing effort.)



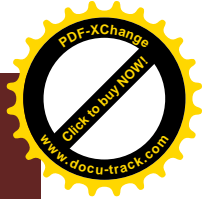
# Scenario

- Feature: Online shopping cart
- Internal actors – Marketing, Finance, Customer Service, IS
- External actors – Site shoppers



# Method

- Create a matrix with users and user need categories
- The fullness of the matrix is a measure of the completeness of the User Needs information
- Empty cells may become issues for users after implementation of the system



# Customer Expectations

## Marketing

## Finance

## IS

Apply usability best practices

Daily batch of transactions saved for upload and reconciliation

web service will upload approved CSV file to financial system

Suggest similar items for purchase

Financial records protected

Failover and recovery in DR in <4 hours

Retain user information for analysis and marketing

Increase revenue from online transactions

PIPEDA standards for privacy and compliance

Increase in repeat shoppers

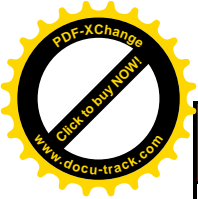
Notification when service(s) fail

Increase market share

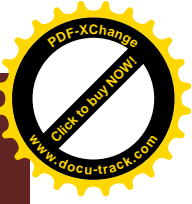
Configuration changes where possible vs. code-level customization

Ability to function with 100 concurrent users

99.9% uptime



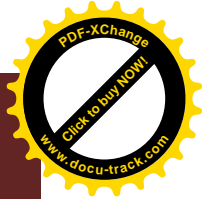
	Site Shopper	CS
Functional	Use my PayPal account to pay	Allow CS user to make online payment on user`s behalf
Usable	“working” indicator to let me know the system is performing a function, such as search retrieval or payment transaction processing	Don’t make me think, Offer training, online help and contextual quick tips in how to use the system
Capable	Remember my password and preferences, shopping history	Mimic the user experience to support callers
Secure	Assurance my profile information won’t get hacked	Allow me to remove a customer profile from the system
Reliable	Transaction complete messaging with option to print details	Transaction complete messaging with option to print or email transaction details to the caller
Flexible	If new features are added, don’t make me relearn the system	Make “search user” my home page
Productive	In the current system, the browser slows down as I go through the process	Allow me to have multiple concurrent user sessions open and active
Efficient	Allow a low bandwidth option	When finishing with one support call, allow me to search and retrieve the next caller’s information
Available	Accessible from IE, Firefox, Chrome	Allow call centres in various locations to access the system
Maintainable	Save my shopping cart contents and continue shopping	If browser crashes, retrieve previous user session
Effective	One stop shopping	Suggest similar or new products I can offer the caller
Responsive	Screen responds < 3 seconds	It must be as fast as our current backend system
Robust	Descriptive error messages and manual workarounds	Decrease manual paper processing of transactions because the system is down



Requirements are  
15% Complete  
and 7% Correct



- Completeness
  - Comes from how much of the [Impacted User Groups vs. the 13 User Need Categories] matrix is typically covered
- Correctness
  - Comes from how many of the User Needs in the matrix trace from well defined Customer Expectations



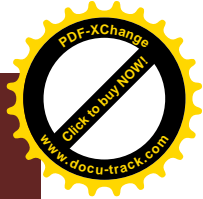
# Rationalizing Requirements





# MoSCoW

- Must have
- Should have
- Could have
- Will not have (this release, but perhaps in the future)



# ROI

- Subjective!
- Give an estimated business value score (out of 10)
  - Value to the business or endeavour
- Give an estimated level of complexity (out of 10)
  - Complexity to build the feature
- Divide 'estimated value' by 'complexity'

$$\frac{\text{Estimated value}}{\text{Complexity}} = \frac{8}{6} = 133\%$$

- The higher the business the value and the lower the complexity, the higher the ROI.



# Traceability

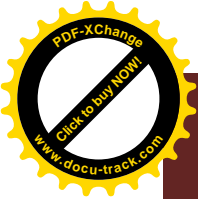
- Maintain a level of traceability in your requirements
- Number them (F1, C2, R1, etc.)
- When developing Use Cases, you'll have a reference to the requirement the use case addresses



# Write in Clear Language

“The Solution Accelerator team makes guidance and tools in the whitespace between products.”

*MS Solution Accelerator Team Web Site  
(seriously)*



# Contact Information

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