

2002 S.A.L.T. Conference, Arlington Virginia

Todd Stubbs, Brigham Young University

How Did You Manage to Do That?

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HOW Magazine – *Of all the obstacles you could encounter during a project, what weighs most: a lack of time, a lack of finances, or a lack of ideas? How do you surmount these obstacles?*

Bryan – *The largest obstacle you could encounter during a project is a lack of **process**. Quick deadlines and small budgets can actually promote the best ideas, however without a solid, well-defined and communicated, iterative **process**, even the best ideas and client relationships suffer. **Process, process, process.***

(From an interview of Brian Dorsey, Vice President and Product Manager at *QuickFace*, conducted by design magazine HOW. Emphasis mine.)

A Comparison of Production Processes

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The Original CID Process

1. Origination (Paperwork)
2. Manuscript (Content Development & Design)
3. Pre-Production (Design & Planning)
4. Production (Programming & Art)
5. Testing
6. Implementation
7. Evaluation

Disney Imagineering

1. “Blue Sky” Treatment
2. Concept Development
3. Assessing Financial Feasibility
4. Develop Design
5. Develop Construction Documents
6. Bid and Construct
7. Turn over to O&M

Interactivity by Design

Kristof & Satran

1. Information Design

- Objectives, etc.
- Audience Analysis
- Content Development
- Content Structure

2. Interaction Design

- Functionality
- Usability (including Navigation)

3. Presentation Design

- Experience Design:
- Sight, Sound, etc.

DADI Process

Clement Mok

1. Definition
 - A lot like information and interaction design
2. Architecture
 - Revisiting information and interaction design with more rigor
3. Design
 - Artwork, production, and market testing
4. Implementation
 - (Remember: for Mok the design IS the product)

BYU ESSG Project Management

Kinds of Documentation (=phase deliverables)

- Project Proposal
 - Includes purpose, target scope, target schedule, target budget, and target use of resources
 - Combined with the “Concept” document
- PDD: Project Definition Document
 - Objective statement, success criteria, flexibility matrix, major deliverables (is/is not), and roster of stakeholders
- WBS: Work Breakdown Structure
 - Documentation of every task, with owner, dependencies, and projected timelines

BYU ESSG Project Management

Work Breakdown Process (ESSG Phase 3)

1. Identify all tasks needed to complete the project
2. Assign an owner to each task
3. Determine completion criteria for each task
4. Organize (computerize) all task information
5. Determine dependencies between tasks
6. Create preliminary schedule
7. Using flexibility matrix, refine task durations
8. Determine workloads
9. Firm up work schedule

General Principles & Rules of Thumb

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Two World Views

Bran Ferrin

- Requirements-based
 - Technologist's & Engineer's Perspective
 - Improves things under the current paradigm
 - “What's Needed?”
- “Big Idea”-based
 - Artist's & Storyteller's Perspective
 - Changes the paradigm
 - “What's Cool?”

Both are Important! □

Rule of Thirds

Strauss

- ✓ $\frac{1}{3}$ = Design & Planning
- ✓ $\frac{1}{3}$ = Production
- ✓ $\frac{1}{3}$ = Testing & Correction

Success Formula: Quality Experiences

Walt Disney World

- Quality Cast Experience
- Quality Guest Experience
- Quality Business Practice

Success Formula: Quality Experiences

WDW, Translated for Production

- Quality Experience for the Creators
 - Creativity, accomplishment, coolness, fun,
- Quality Experience for the Client
 - Effectiveness and ROI
- Quality Experience for the Consumers
 - A quality product, useful, fun
- Quality Business Practices
 - Sustainable profitability

Balancing/Negotiating Flexibility

- Strauss:
 - Task (requirements, quality, features)
 - Time (scheduling, deadline)
 - Resources (budget, personnel, equipment)

Any one is a function of the other two:

For example:

$$\text{task} = f(\text{time, resources})$$

Balancing/Negotiating Flexibility

- Strauss:
 - Task (requirements, quality, features)
 - Time (scheduling, deadline)
 - Resources (budget, personnel, equipment)
- BYU Enterprise Solutions Support Group:
 - Scope
 - Schedule
 - Resources

Balancing/Negotiating Flexibility

- Strauss:
 - Task (requirements, quality, features)
 - Time (scheduling, deadline)
 - Resources (budget, personnel, equipment)

- BYU ESSG:

	Least Flexible	Somewhat Flexible	Most Flexible
– Scope			
– Schedule			
– Resources			

Balancing/Negotiating Flexibility

- Strauss:
 - Task (requirements, quality, features)
 - Time (scheduling, deadline)
 - Resources (budget, personnel, equipment)

- BYU ESSG:

	Least Flexible	Somewhat Flexible	Most Flexible
– Scope			✓
– Schedule	✓		
– Resources		✓	

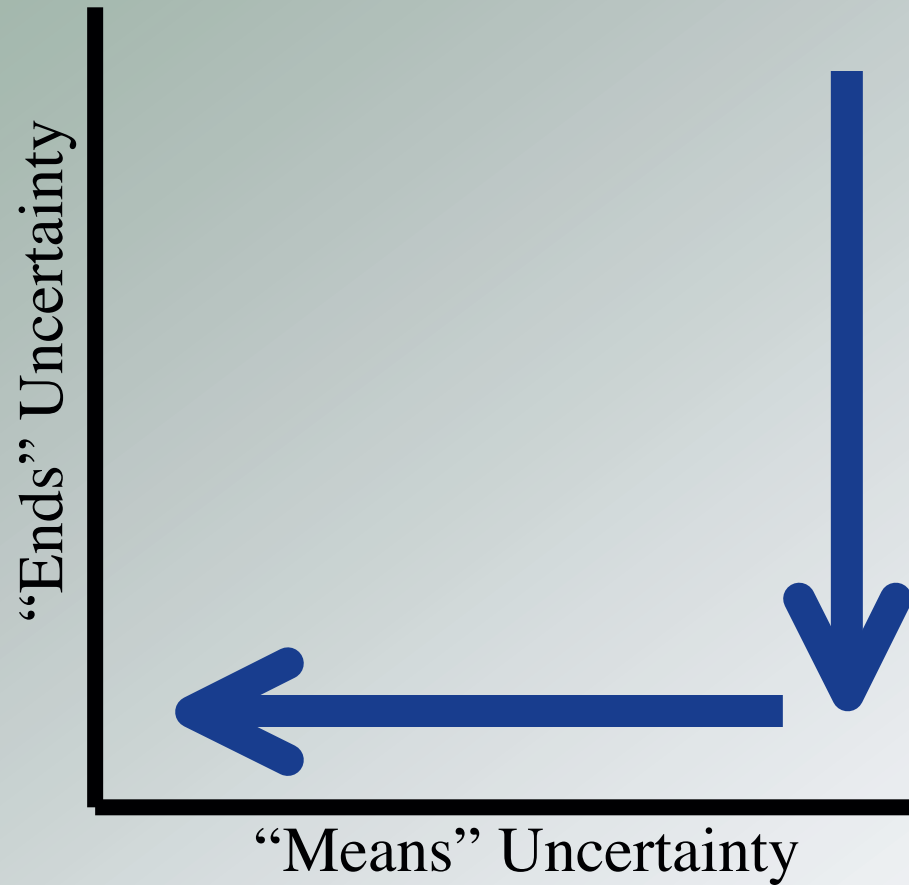
Managing Uncertainty

Laufer

- “Ends” Uncertainty
...how the final product will look
- “Means” Uncertainty
...how you’re going to get it done

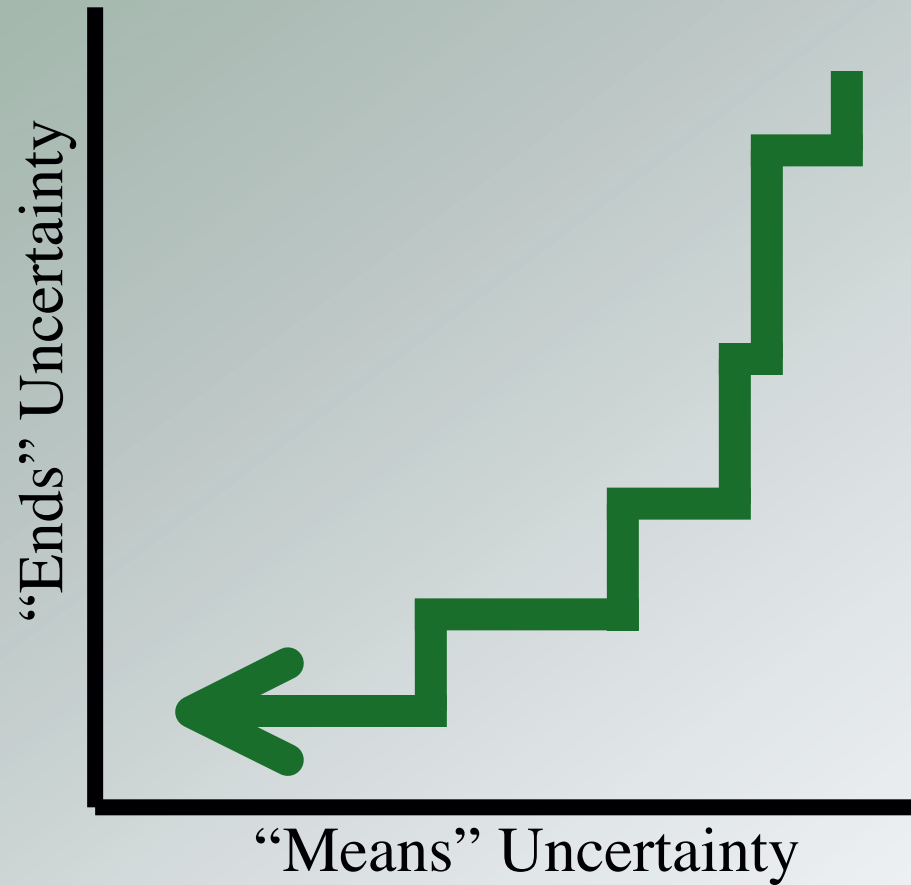
Managing Uncertainty—Cont.

Laufer



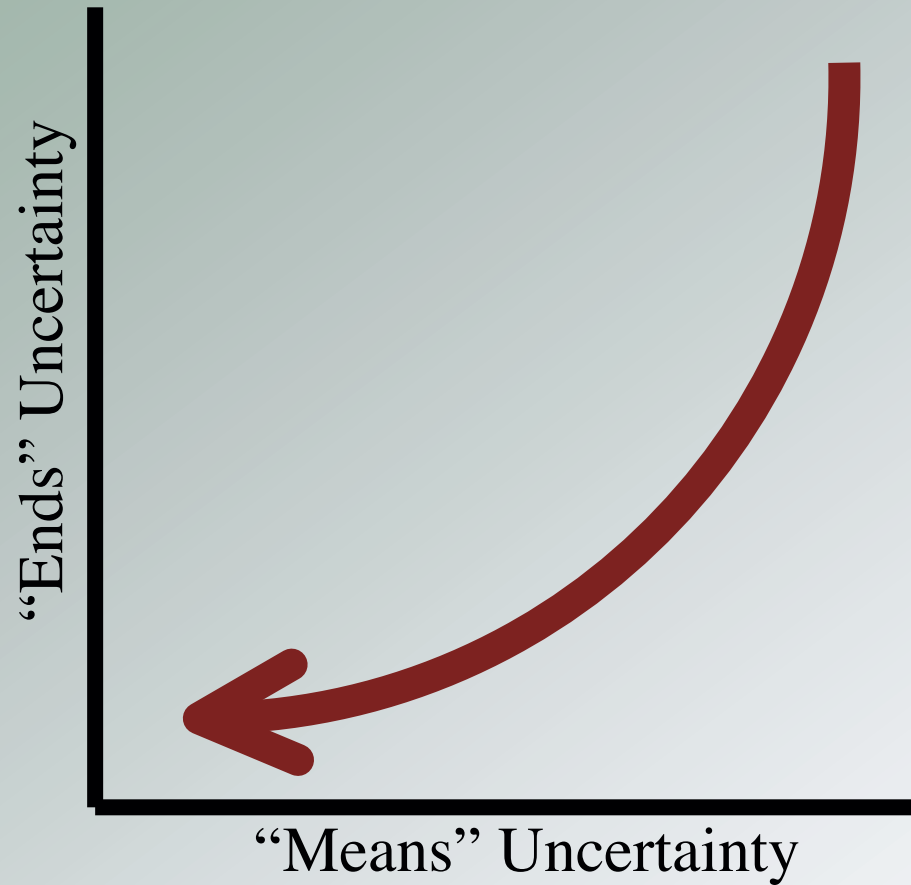
Managing Uncertainty—Cont.

Laufer



Managing Uncertainty—Cont.

Laufer



Managing Uncertainty—Cont.

Laufer

- Isolate “High-Uncertainty” Aspects of a Project
(by making them into sub-projects)
- Prototype Early and Often

Prototype Early and Often

Kelley—Ideo

- Low Fidelity Prototypes
 - Scripts
 - Paper-based
 - PowerPoint
- High Fidelity Prototypes
 - Mock-up (non-functioning)
 - Functioning Model (partial functionality)

CID Bucks

Uibel

- Equals how much can be done in one 4-hour student shift by a competent student employee
- Level of work based on type of project
- Includes an additive effect based on complexity

CID Bucks

Uibel

			MOTION						
			LOW COMPLEXITY	MED COMPLEXITY	HIGH COMPLEXITY				
3D computer graphics		A COMPLEX MODEL, F/X	24	CAMERA MOVE 2	MULTIPLE ANGLES, FX 12	CHARACTER ANIMS/ EXPRESSIONS 20			
		B MEDIUM COMPLEXITY	6						
		C SIMPLE OR STOCK MODEL	3						
					LINK NODES?				
VR quicktime vr	OBJECT	A COMPLEX, F/X	27	2					
		B MEDIUM COMPLEXITY	9						
		C SIMPLE OR STOCK MODEL	7						
	PHOTO	A LOCATION (CONSULTATION REQ'D)	6						
		B STUDIO, IN-HOUSE	4						
		C POINT 'N CLICK	4						
			INTERACTIVITY						
FL macromedia flash	ILLUST.	A HIGH-LEVEL, CUSTOM	6	MOUSE-OVERS, HYPERLINKS 2	SIMPLE DECISION-MAKING, READING QUIZZES 8	VARIABLES, DRAG AND DROP, (PROGRAMMING CONSULTATION REQ'D) 20			
		B LOW-LEVEL, CUSTOM (CHARTS, ETC.)	3						
		C CLIP ART OR STOCK ILLUSTRATION	2						
	PHOTO	A LOCATION (CONSULTATION REQ'D)	4						
		B STUDIO, IN-HOUSE	2						
		C POINT 'N CLICK, STOCK	2						
	TEXT	A SIMPLE TEXT, EQUATIONS	2						
	IL illustration		A HIGH-LEVEL, CUSTOM				5		
B LOW-LEVEL, CUSTOM (CHARTS, ETC.)			2						
C CLIP ART OR STOCK ILLUSTRATION			0.3						

SERVICE CHART

A Proposed, New Production Process

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Proposed Process

1. Concept
2. Planning
3. Resourcing
4. Design
5. Pre-Production
6. Production
7. Post-Production
8. Close Out

1. Concept

- *Work Steps*: Can be either “Blue Sky”- or Requirements-based
- *Who*: Instructional Designer & Subject Matter Expert (Faculty), + Others
- *Deliverable*: Concept & Proposal (1 to 4 pages)

2. Planning

- *Work Steps:*
 - Project definition, success criteria, flexibility matrix
 - Separate into sub-projects by deliverable and uncertainty
 - Identify owners of sub-projects
 - Identify dependencies
- *Who:* Core Design Team
- *Deliverable:* A Project Definition Document & Project Plan

3. Resourcing

- *Work Steps:*
 - Determine project approval and funding
 - Set up project management, account numbers, etc.
- *Who:* Advisory Committee & Project Coordinators
- *Deliverable:* Approval, Management Set Up & Resources

4. Design

- *Work Steps*: Detailed Instructional Design for Each Sub-project!
 - Detailed Information Design (Information Architecture)
 - Detailed Interaction Design
- *Who*: Design Core Team
- *Deliverable*: I³ Design Document

5. Pre-Production

- *Work Steps:* (Same as ESSG Phase 3.0)
 - Identify tasks, owners, completion criteria, dependencies
 - Organize, schedule, clarify, finalize
- *Who:* Core Production Team
- *Deliverable:* Production Plan

ESSG Project Management

Work Breakdown Process (Phase 3)

1. Identify all tasks needed to complete the project
2. Assign an owner to each task
3. Determine completion criteria for each task
4. Organize (computerize) all task information
5. Determine dependencies between tasks
6. Create preliminary schedule
7. Using flexibility matrix, refine task durations
8. Determine workloads
9. Firm up work schedule

6. Production

- *Work Steps:* Execute the Plan
- *Who:* Production Department
- *Deliverable:* A Beta Version of the Product

7. Post-Production

- *Work Steps:* Installers, Plug-in Accommodation, Product Testing, Documentation, Training Plan
- *Who:* Post-Production Team
- *Deliverable:* Final Product and its Support Materials

8. Close Out

- *Work Steps:* Close out Accounting, Close out Project Management, Get Client Sign-off, Celebrate
- *Who:* Project Coordination, Team
- *Deliverable:* Responsibility shifted!

Questions?

Thank You!

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