

Software Simulation Empowerment

COLLABORATION, INNOVATION and INTERACTIVITY

*The Power of Simulation and
Software Design!*

Bill Dresselhaus, IDSA

Software Simulation Empowerment

Corporate BuzzWord Propaganda

Ease-of-Use

Total Quality

Customer-Based

INNOVATION

User Friendly

Core Competency

Out-of-the-Box

Six Sigma

Empowerment

COLLABORATION

Saying is NOT doing!!!!

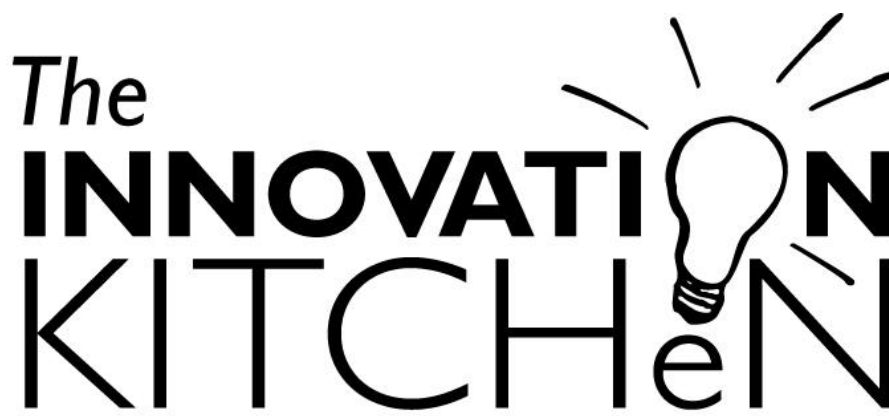
Software Simulation Empowerment

“We are implementing continuous improvement processes across our entire enterprise for promoting innovation and collaborative creativity as we increase productivity and customer quality with our integrated, cross-functional TQM, JIT, CRM and ERP teamwork for IT solutions.”

**“Me design good product,
Make money.”**

Software Simulation Empowerment

THE INNOVATION KITCHEN



www.BillDresselhaus.com

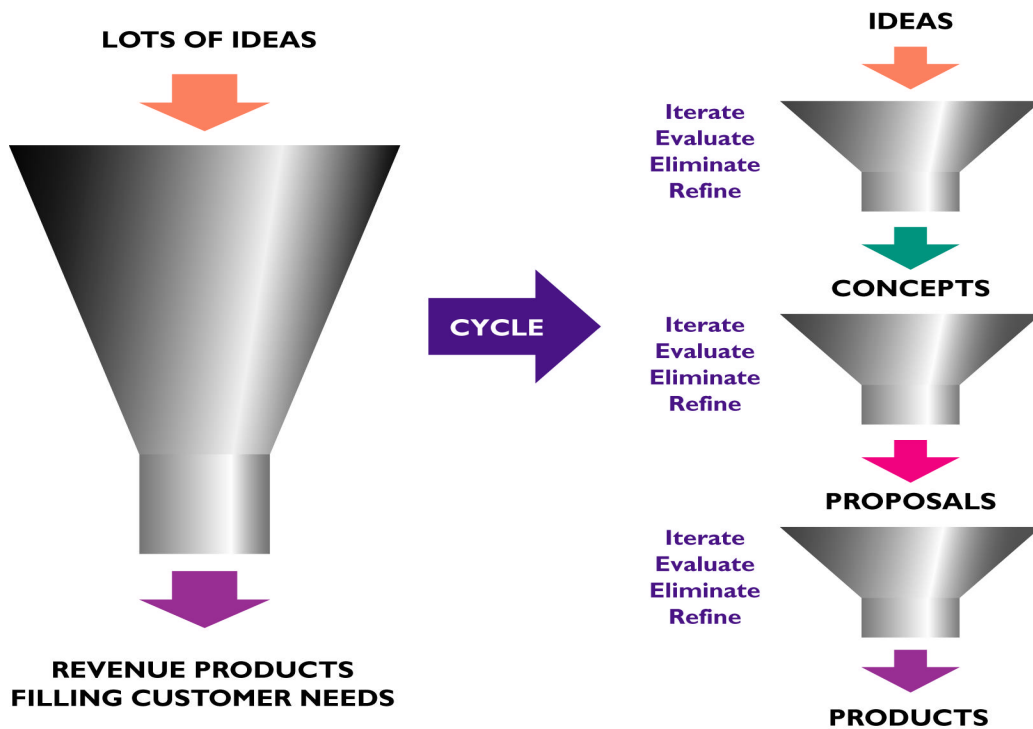
Software Simulation Empowerment

THE REAL BUSINESS OF BUSINESS . . .

generating
new ideas
and
turning them
into
need-filling,
wealth-building
products.

Software Simulation Empowerment

More and Better *IDEAS* Everywhere



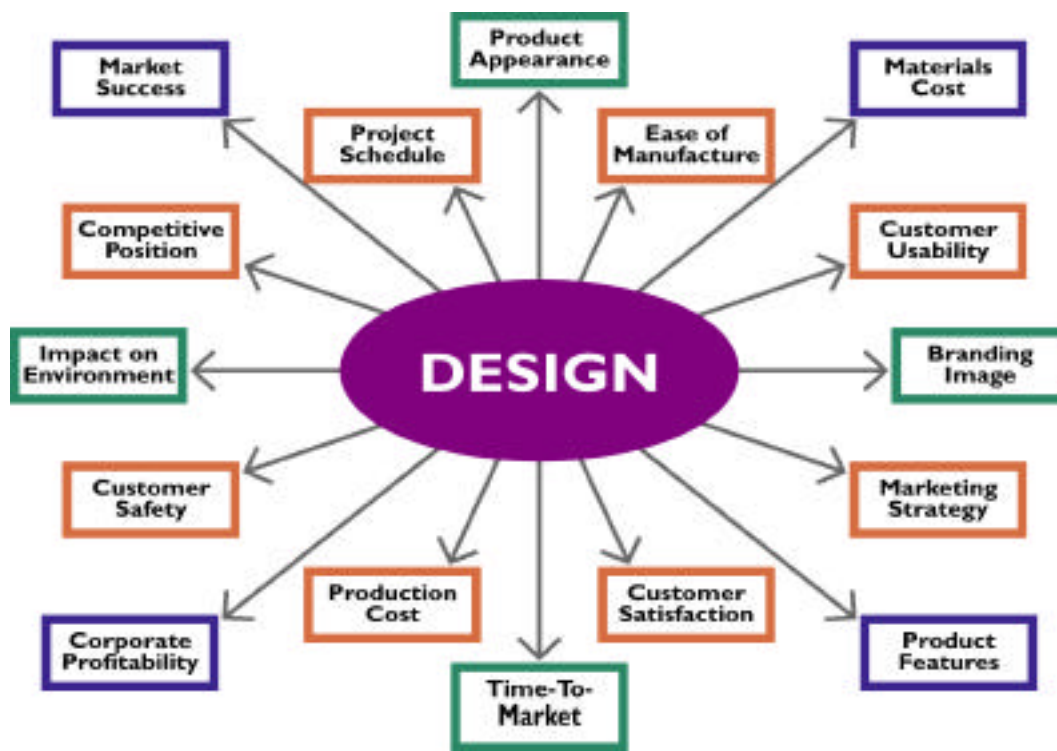
Software Simulation Empowerment

DESIGN and BUSINESS are Inseparable



Software Simulation Empowerment

DESIGN Affects *Everything!*



Software Simulation Empowerment

Products *MUST* Meet Customer Needs and Wants



Software Simulation Empowerment

DESIGN AS THE UNIVERSAL PROBLEM-SOLVING PROCESS



Software Simulation Empowerment

Characteristic of Design and Designers



Software Simulation Empowerment

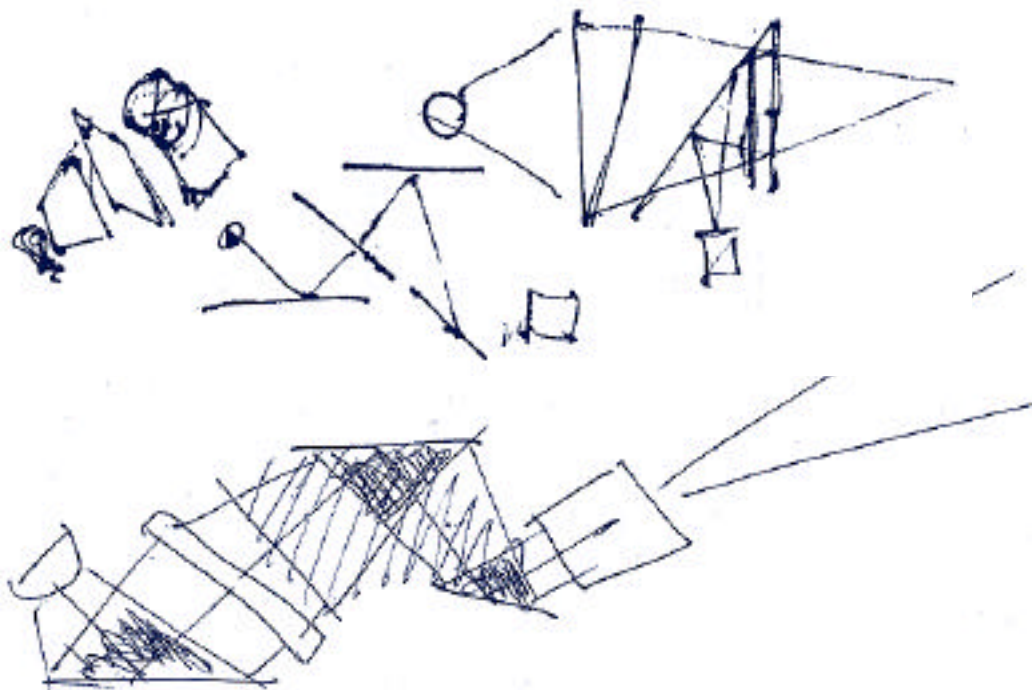
SIMULATION: JUST WHAT IS IT?

Simulation:

The
representation, reproduction, demonstration or imitation
of an
idea, concept, object or process
using some form of
communication media.

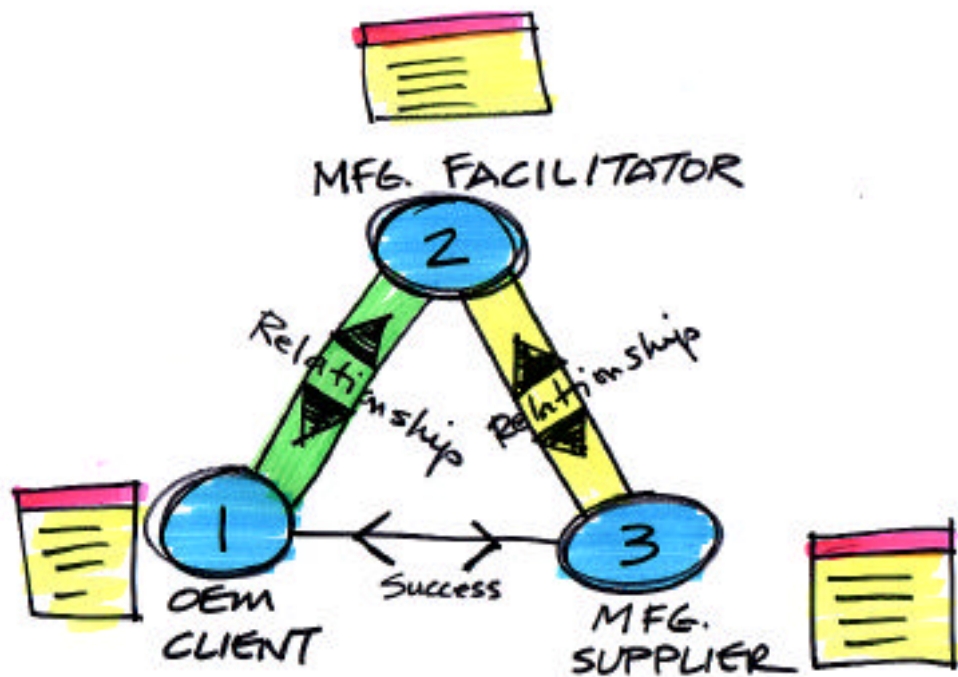
Software Simulation Empowerment

Simple Freehand “Napkin” Sketches



Software Simulation Empowerment

Simple Freehand Diagrams



Software Simulation Empowerment

Posted Sticky Notes



Software Simulation Empowerment

Simple Foam Blocks



Software Simulation Empowerment

Toys As Concept Elements and Parts



Software Simulation Empowerment

**Dramatization, Role-Playing, Directed
Fantasy, Scenario Building**



Software Simulation Empowerment

WHY THE KEY TO COLLABORATION AND INNOVATION?

- **Shared Mental Space**
- **Common Imagery**
- **Uniform Perception**
- **Similar Experience**
- **Same reference point**

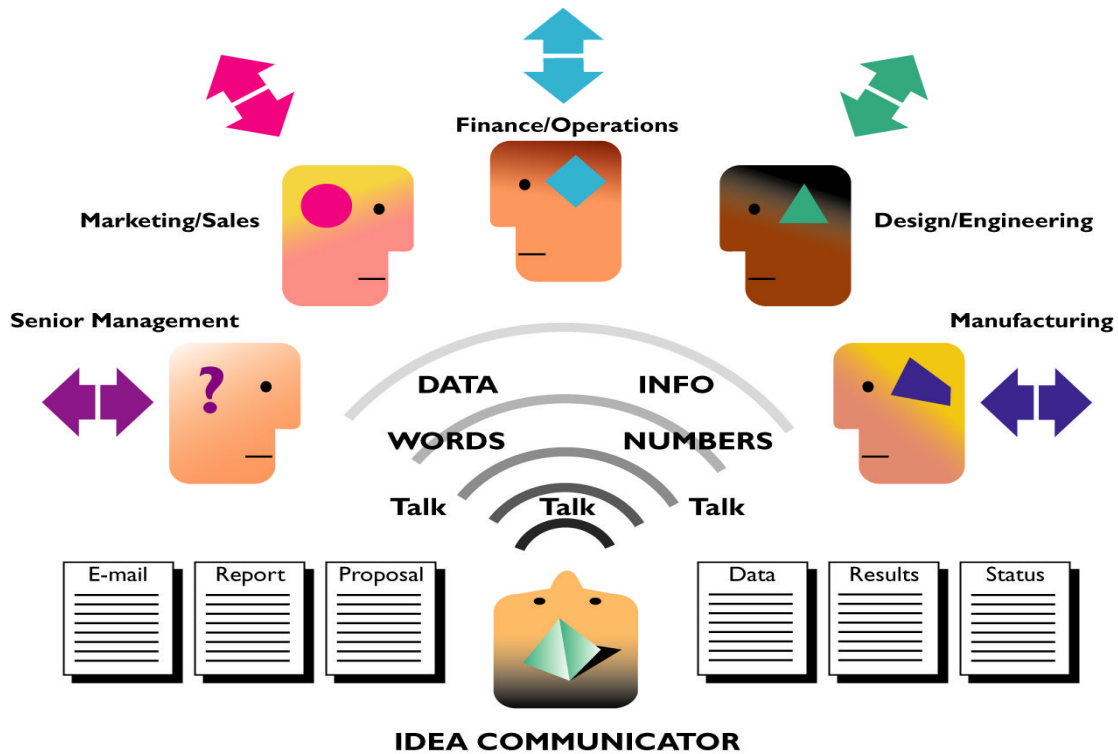
Software Simulation Empowerment

S(t)imulate to Innovate Sequence



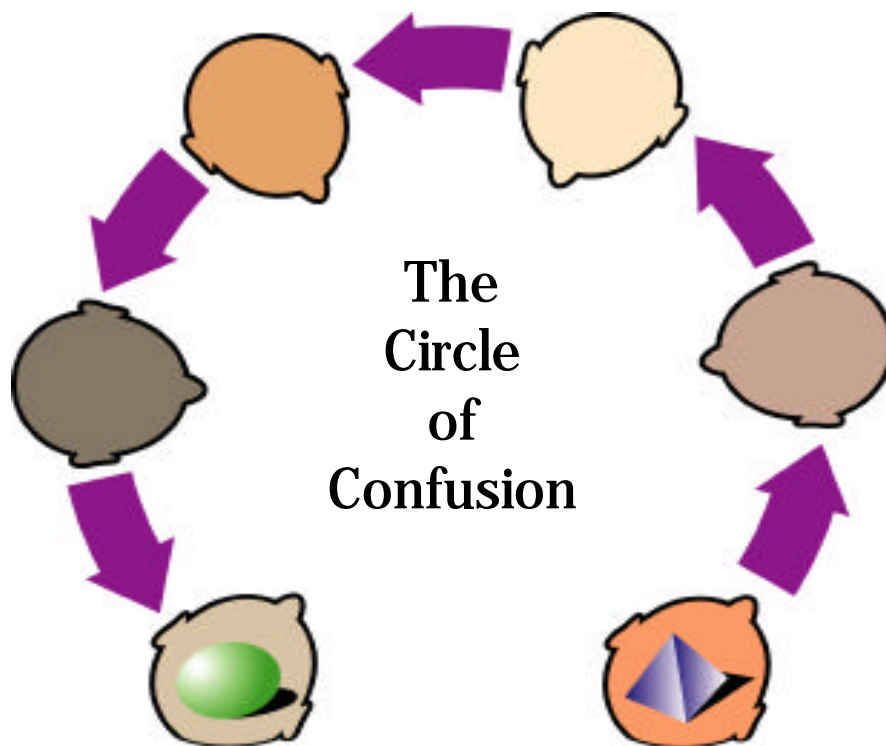
Software Simulation Empowerment

Verbally-Based Communication



Software Simulation Empowerment

The Hazards of Only *Telling* a Story

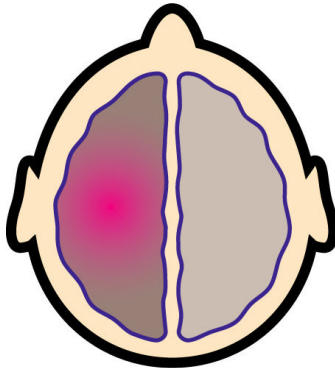


Software Simulation Empowerment

Right-Left Brain Theory

LEFT BRAIN BIASED ATTRIBUTES

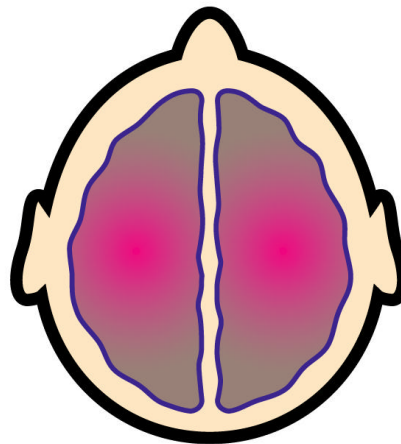
Controls right side of body
Verbal
Analytical
Abstract
Two dimensional
Objective
Logical
Rational
Factual
Quantitative



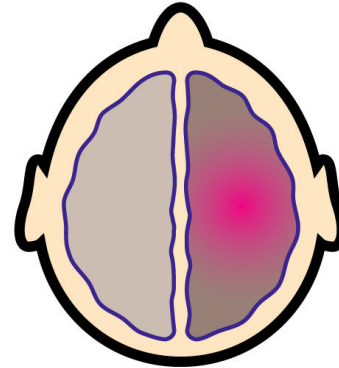
Left-brained biased
"right-handed" thinking

RIGHT BRAIN BIASED ATTRIBUTES

Controls left side of body
Visual
Intuitive
Concrete
Three dimensional
Subjective
Emotional
Irrational
Intuitive
Qualitative

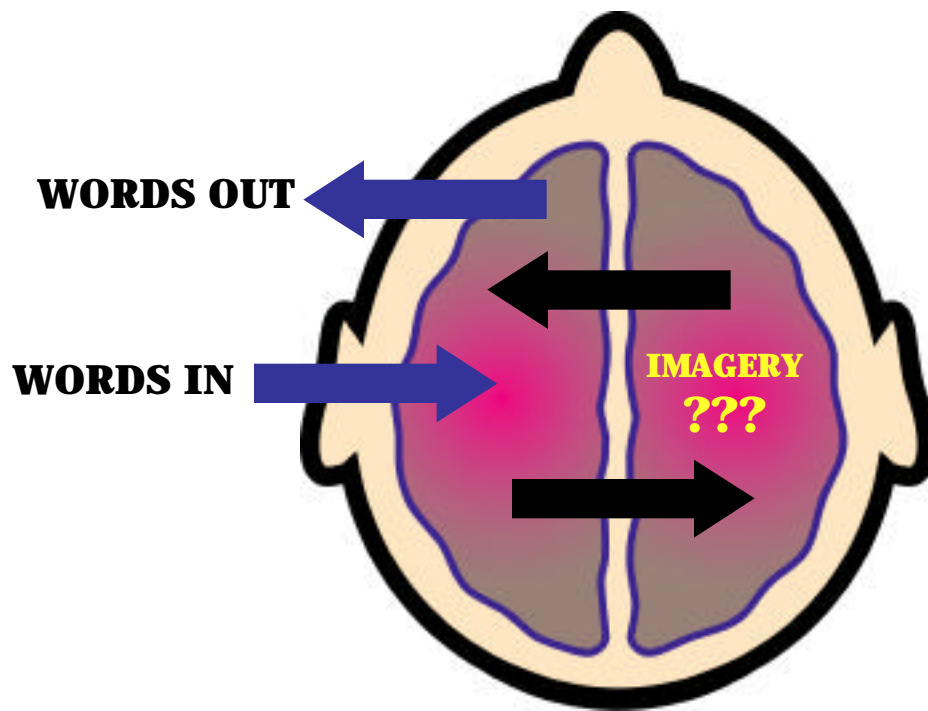


Ideal whole-brained
"ambidextrous" thinking



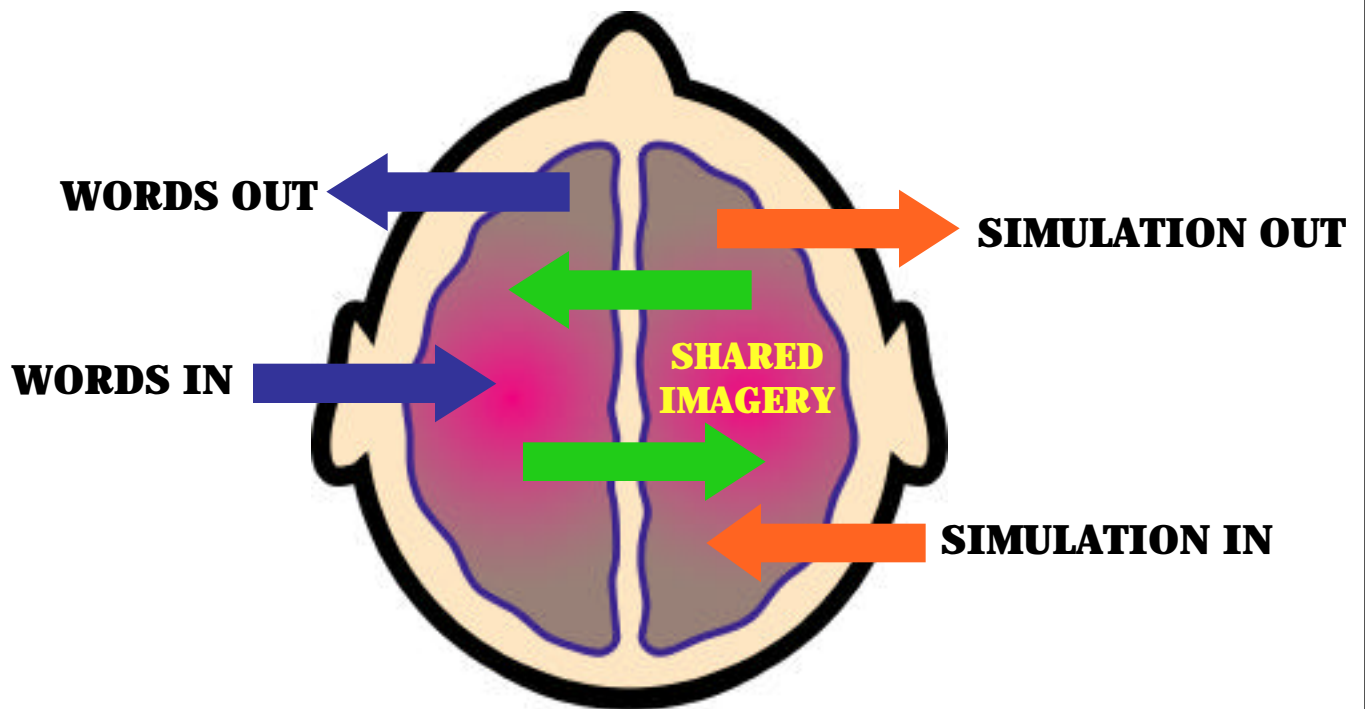
Right-brained biased
"left-handed" thinking

Software Simulation Empowerment



Verbal/Numeric-Based Input

Software Simulation Empowerment



Simulation/Sensory-Based Input

Software Simulation Empowerment

Human Sensory Bandwidth

Verbal

Visual

Tactile

Kinesthetic

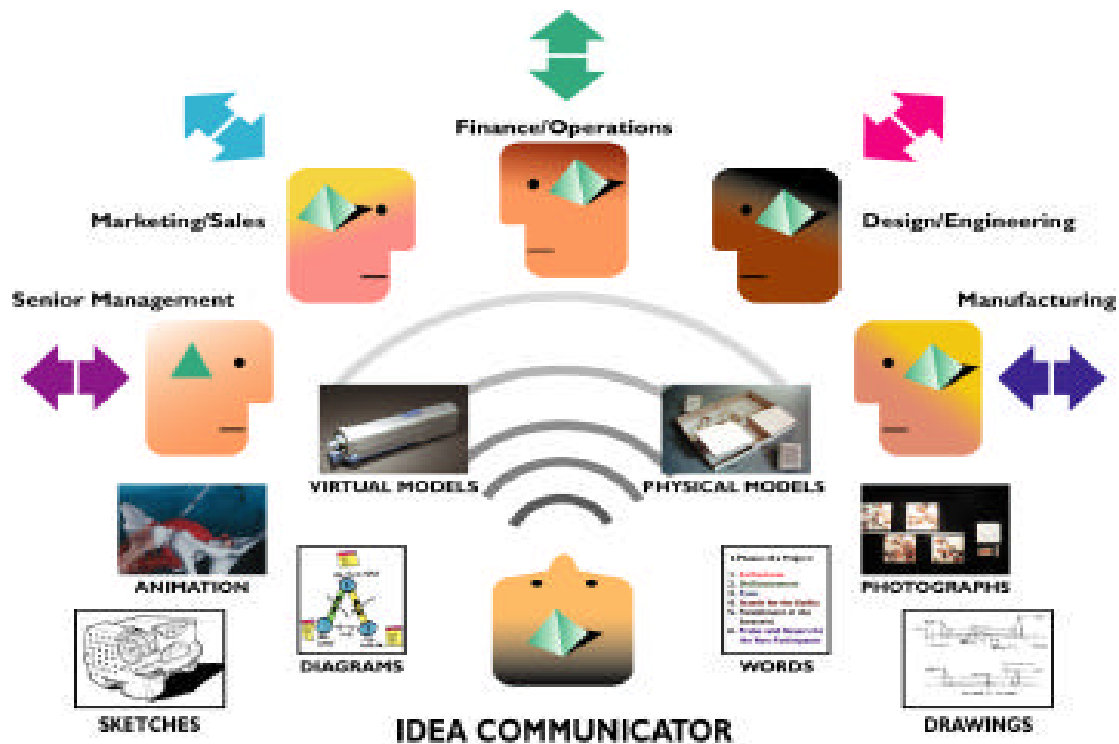
Aural

Taste/Olfactory

SENSORIZE!!

Software Simulation Empowerment

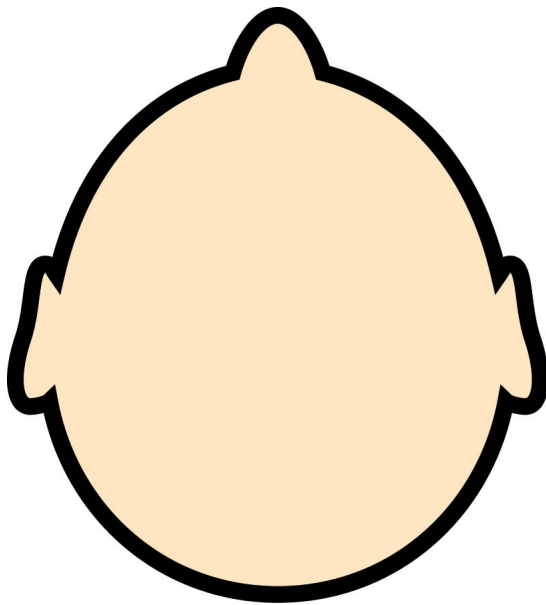
Simulation-Based Communication



Software Simulation Empowerment

EXTERNALIZED THINKING

The ultimate out-of-your-mind experience!



Software Simulation Empowerment

Simulation Media



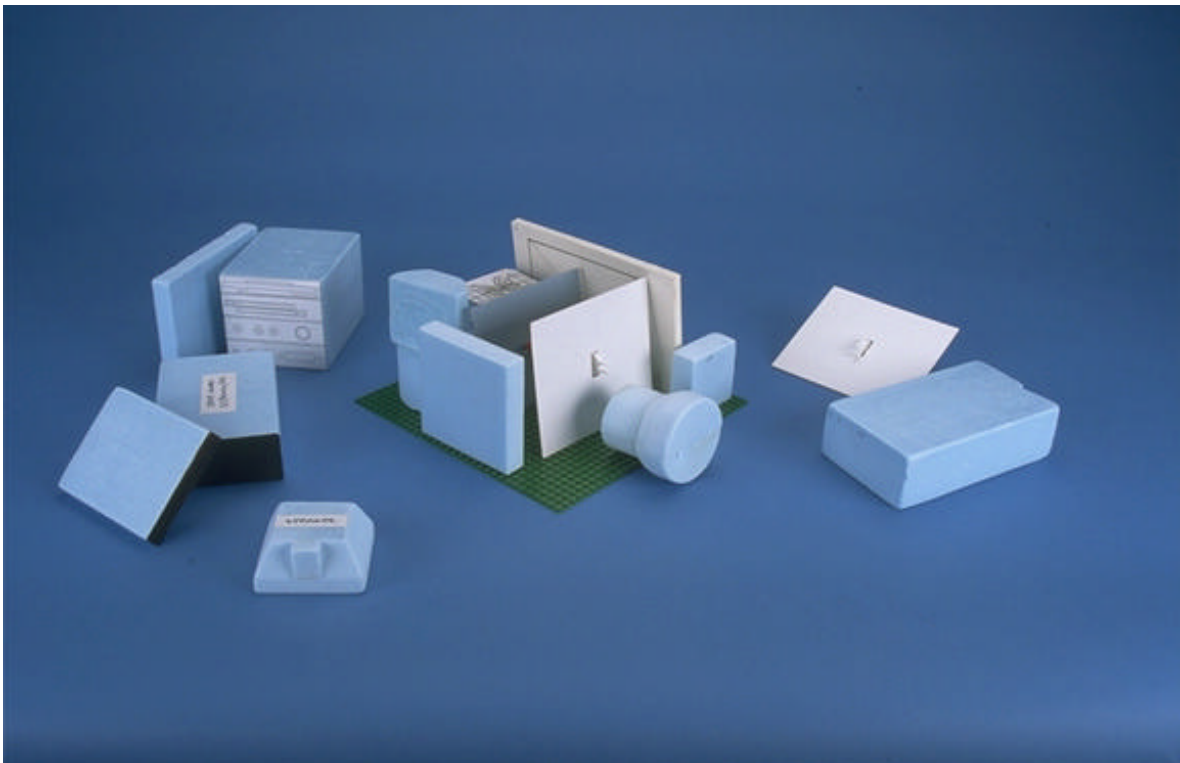
Software Simulation Empowerment

Simulation Tools



Software Simulation Empowerment

Collaborative Options Developed



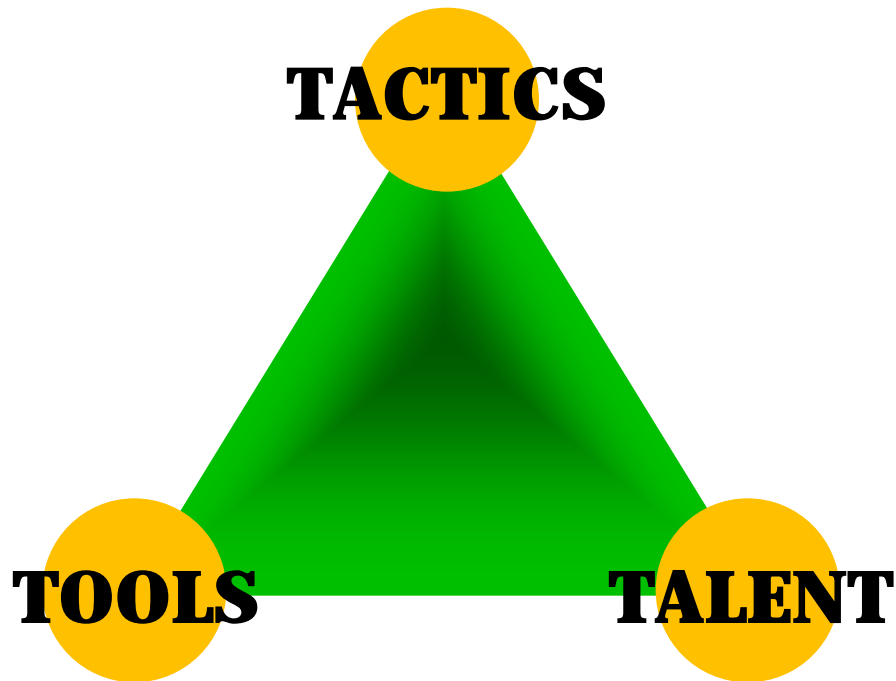
Software Simulation Empowerment

THE RESULT

- **Five viable product configuration solutions**
- **Everyone involved and having participated**
- **Consensus and collaboration on all solutions**
- **Validation by all essential functional groups**
- **No confusion over perceptions or concepts**

Software Simulation Empowerment

Beyond Strategy



Software Simulation Empowerment

INGREDIENTS

- **TACTIC:** Dedicated Simulation Laboratory
- **TOOL:** Appropriate Simulation Media
- **TALENT:** Champion Simulation Specialist

Software Simulation Empowerment

SIMULATION LABORATORY: INTERACTION AND EXPOSURE

- A place for process and meeting of minds
- Collection of shared and common experiences
- Open to all departments and functions
- A sensory and experiential extravaganza
- A display of what your business is all about

Software Simulation Empowerment

SIMULATION MEDIA: SENSORIZATION TOOLS

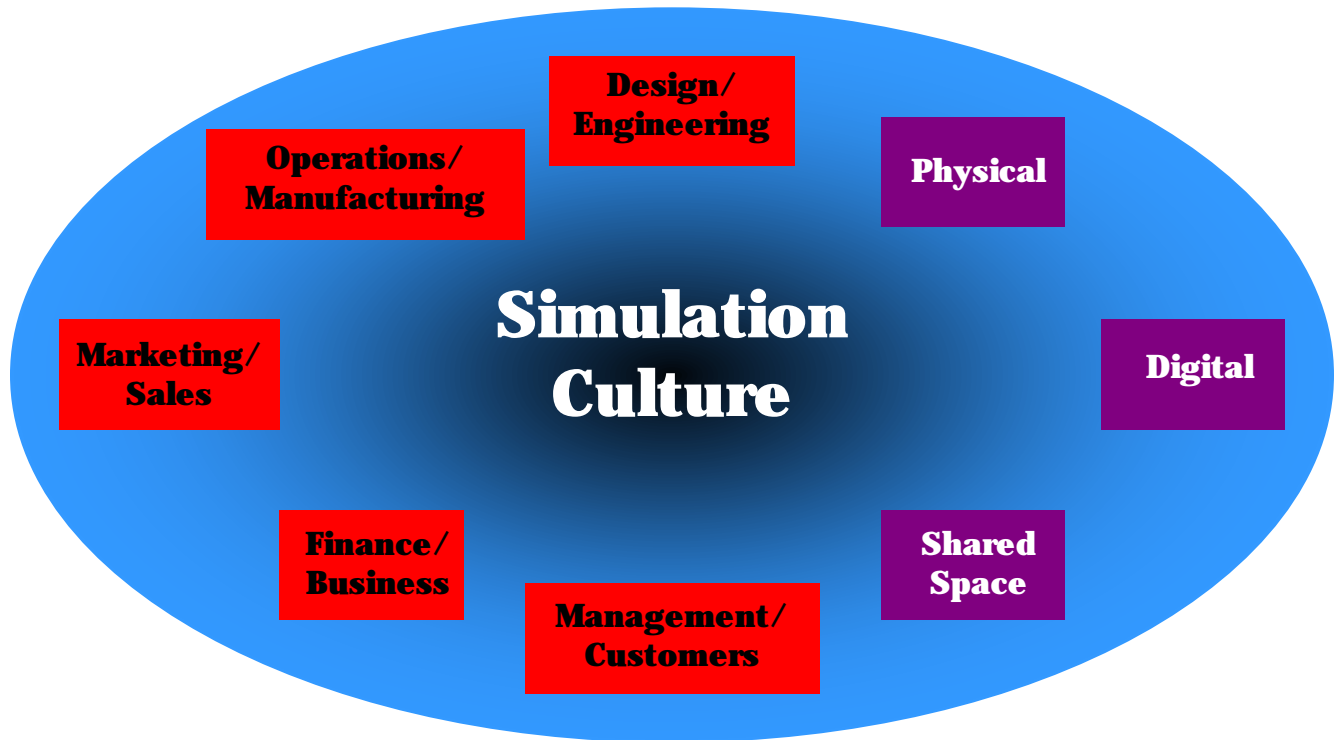
- Electronic whiteboards
- Storyboards and tack boards
- Technology maps and product roadmaps
- Company product samples (real and virtual)
- Samples of the competition (real and virtual)
- Digital design workstation with resources and Internet access with projection

Software Simulation Empowerment

SIMULATION SPECIALIST: FACILITATOR/CHAMPION OF THE PROCESS

- Industrial Designers
- Software Designers

Software Simulation Empowerment



Software Simulation Empowerment

SIMULATION SIDE EFFECT

SIMULATE to:

- *Intimidate*
- *Irritate*
- *Aggravate*
- *Violate*
- *Frustrate*

Software Simulation Empowerment

SIMULATION SPELLS DISASTER FOR:

- Sacred Cows
- Pet Ideas
- Management Taboos
- Corporate Schemes

Software Simulation Empowerment

**SIMULATION'S GREATEST VALUE IS
NOT
IN MERE REPRESENTATION!**

- Collaboration
- Surprise
- Serendipity
- Invention
- New ideas
- Innovation
- IT CHANGES THINGS!

Software Simulation Empowerment



*Have Fun,
Make Money,
Change the World!*

