



Lead User Workshop

One IBM Web Experience

Fusion One (F1) Model Validation

ibm.com
the power of one

Stephen Woodburn
Anthony Hall
Sonal Starr
David Lamborn
ibm.com Strategic Design Team

Contents

- Objectives
- Context
 - One IBM Web Experience
 - User goal modeling
 - Model validation and challenge
- Lead User technique
 - Change
 - Players – IBM, Lead Users
 - Timeline
 - Method
 - Lead User critical needs
- Results
 - Future user roles – Lead User tree
 - Future user goals
 - Optimal user experience
 - Feedback on IBM user goal model
- Background
 - The Lead Users
 - Workshop protocol and stimuli

Objectives

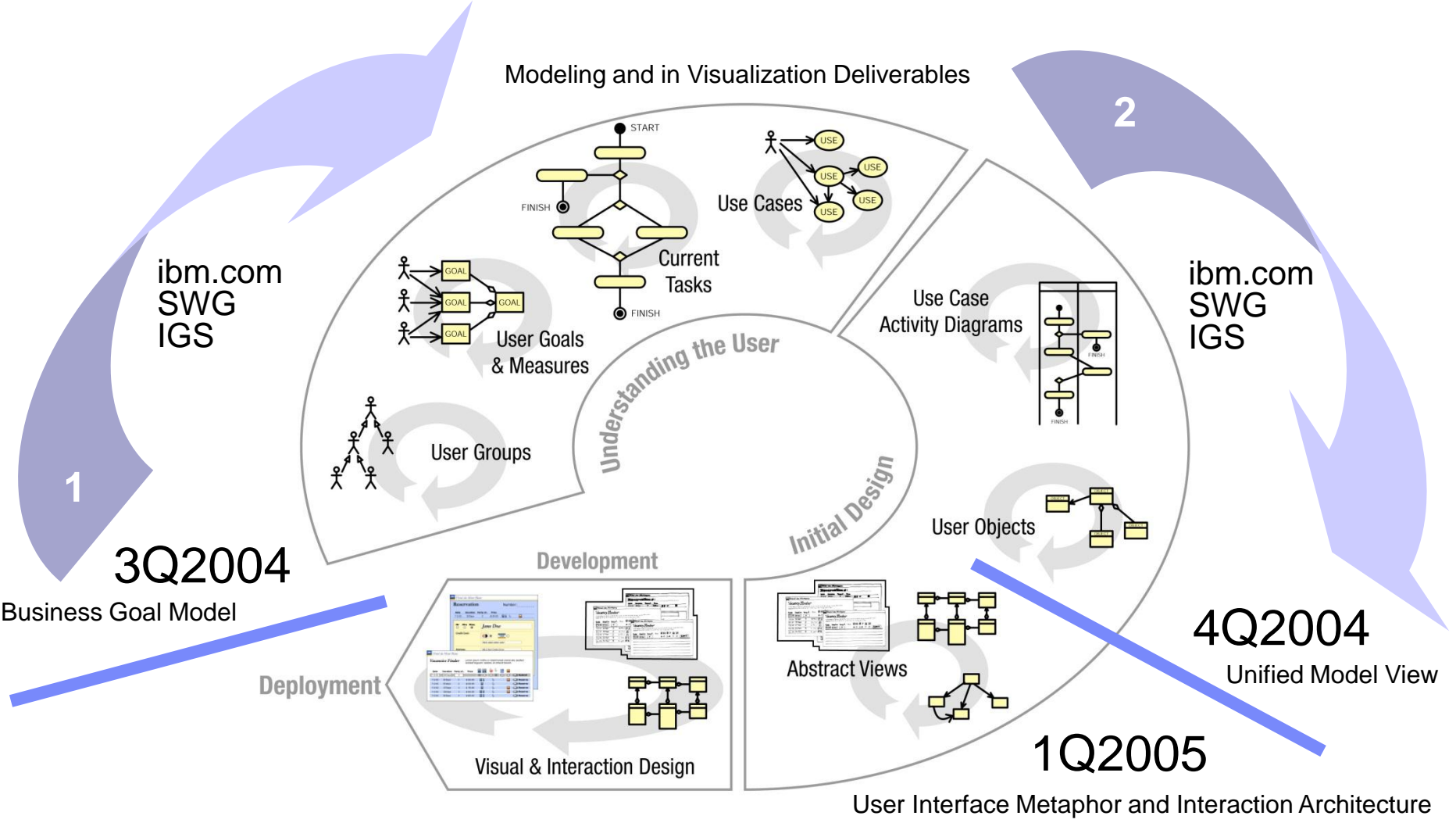
- Evaluate IBM's vision for its web of the future
 - Validate and challenge Fusion One user engineering models
- Discover the critical needs of lead users with respect to remotely accessing, and managing large quantities of multi-format data via multiple modes, in real time
- Uncover potential solutions which address those critical needs



Context

One IBM Web Experience
User goal modeling
Model validation and challenge

One IBM Web Experience Scope and tactics for user engineering core team plan 2H2004



Sample user goal modeling .. Cross-model fusion

2A

Sample Mini View
Use Cases
Drill Down View

4

Goal Model
Detailed View

2B

Goal Model
Higher Order View

Sample Mini View
Activity Diagrams
Views Required for I/A

5

Source: Johnson & Vogele, 2004

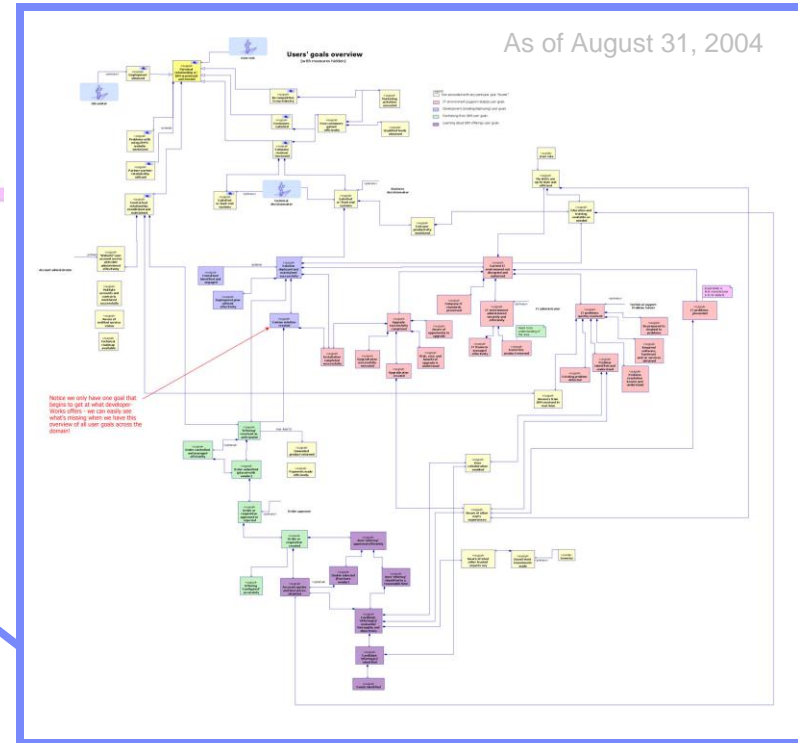
User goal model – Fusion one

Reviewed in Detail with Tony Temple and DC, September 10, 2004

- Detailed model (left)
- Higher-order model (below)



As of August 27, 2004



As of August 31, 2004

Traditional validation of Fusion One materials

- User sample
 - English reading and speaking users on location in US, DE, JP
- Focus group methodology
 - Exploratory and validate techniques in same sessions
 - Small** group samples run separately, as in prior works
- Materials
 - User class diagrams
 - User goal model (higher order view, detailed view as back-up)
 - Object relationships (higher order view)
 - Conceptual framework and visualizations

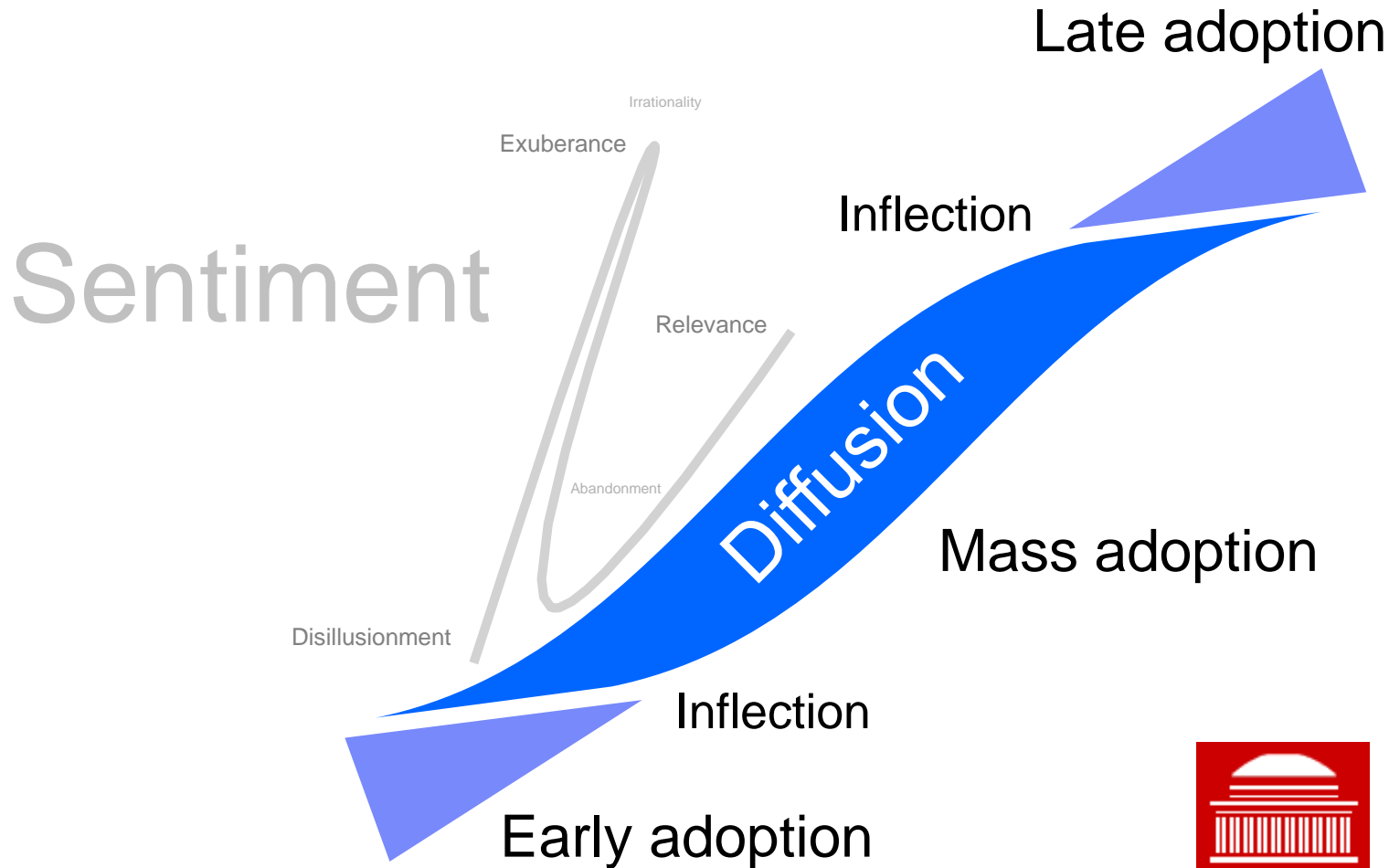
NON-Traditional validation of Fusion One materials

- Lead User panel
 - Identified, recruited via tailored interviewing and networking
 - Extreme innovators creating new solutions to address critical issues
 - Predictive of future user needs
- Facilitated problem-solving methodology
 - 2 teams (Fixed, Mobile) working in parallel
 - Task-oriented work sessions >> share >> discuss
- Materials
 - Lead User tree diagram
 - One IBM Web conceptual framework and user goal model visualizations

Lead User Technique

Change
Players - IBM, Lead Users
Timeline
Method
Lead User critical needs

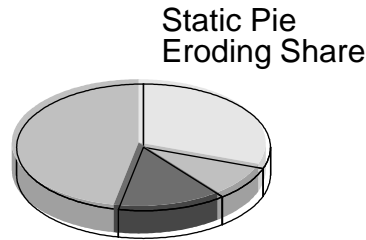
Typical diffusion curve for innovative technologies



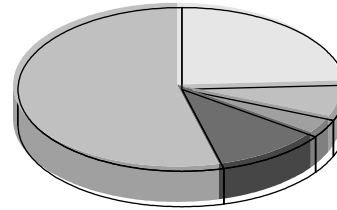
Harvard Business School

Two kinds of innovative change

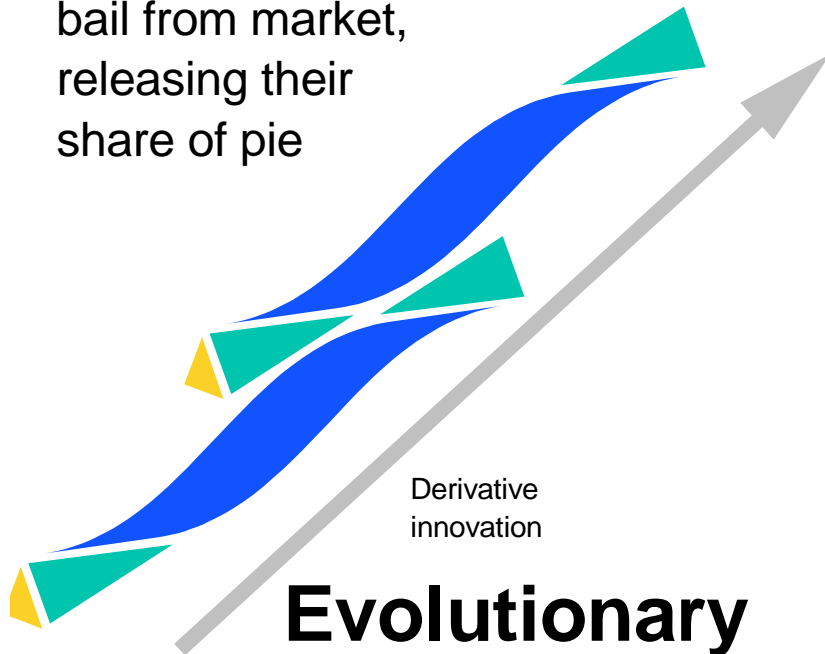
Sustainers, competitors win incremental share of pie



Bigger Pie More Share



All others then bail from market, releasing their share of pie



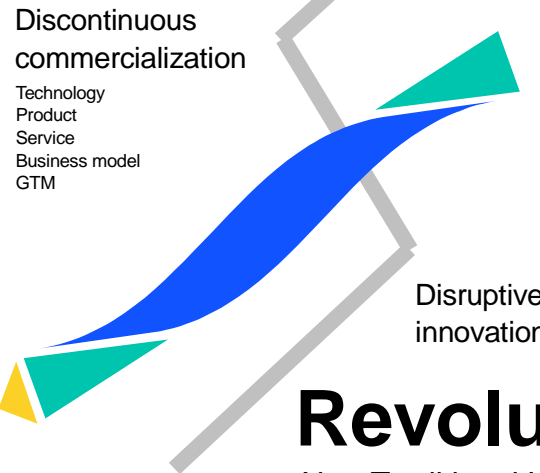
Derivative innovation

Evolutionary
Traditional End User Techniques

Market opportunity addressability



First movers, first survivors grow new pie or re-address old pie



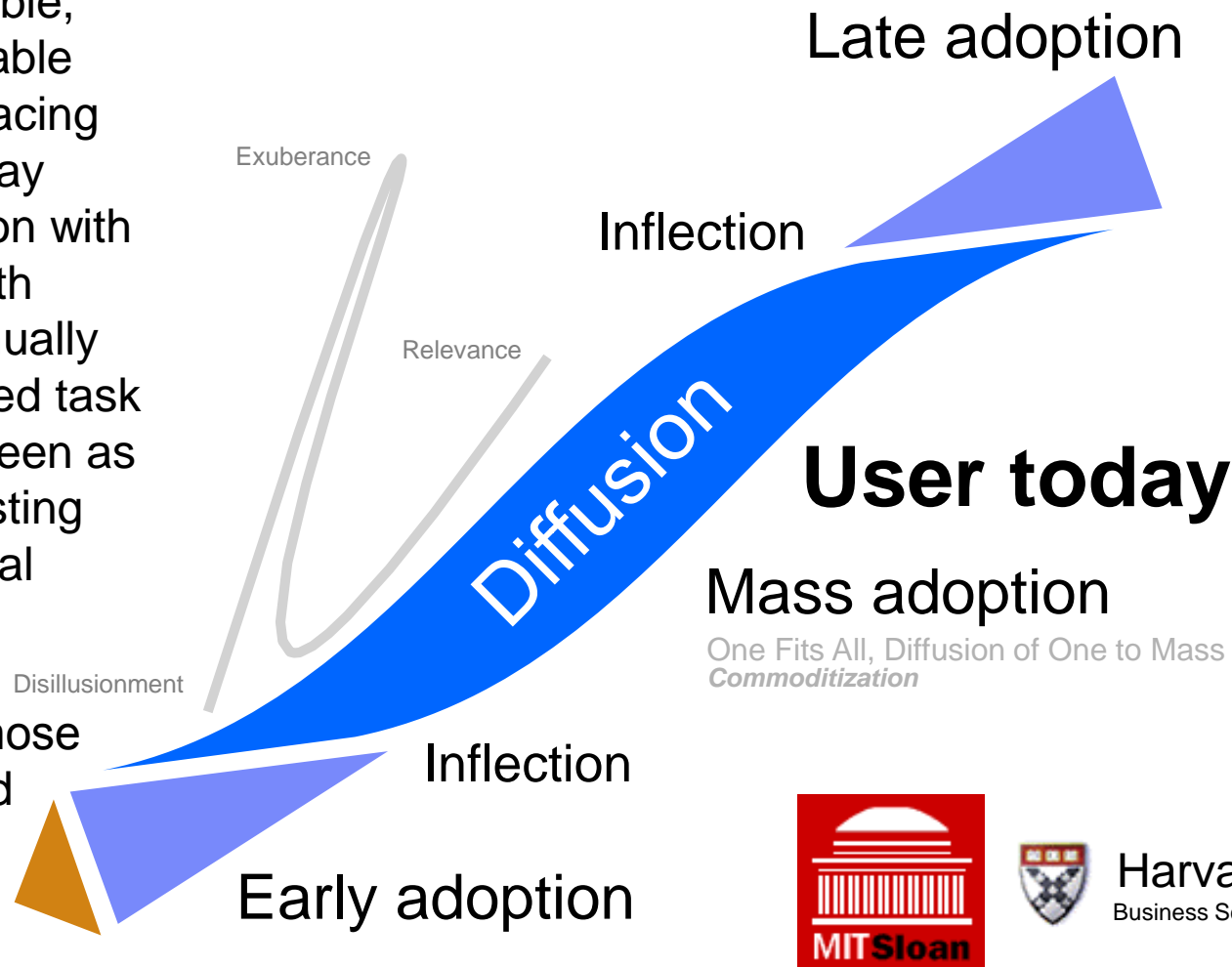
Discontinuous commercialization
Technology
Product
Service
Business model
GTM

Disruptive innovation

Revolutionary
Non-Traditional Lead User Techniques

Today's user considerations

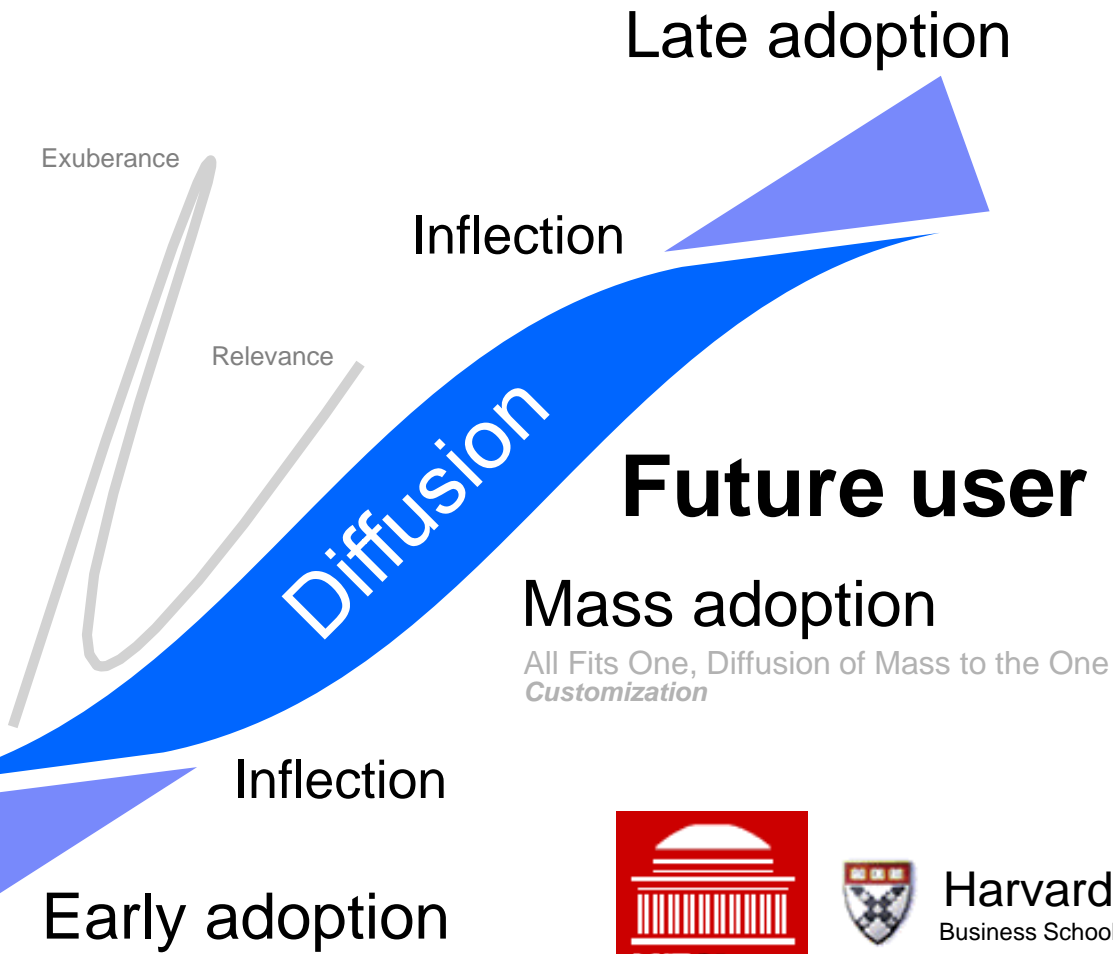
- Systems exist in today's world that are available, visible, relatively usable
- Predictable issues facing the end users of today
- Typical dissatisfaction with existing systems, with opportunity to continually improve on articulated task
- Improvements are seen as derivatives from existing system, not as radical shifts in innovation
- Today's users are those traditionally recruited for focus groups



Tomorrow's user (new world, lead user) considerations

- Critical issues facing the lead user, often life-and-death, unpredictable issues
- Lead users innovate to create new solutions to address critical issues
- Significant investment being made by institutions to drive disruptive change
- Capture observations across multiple, extreme user domains
- Innovation predictive of next adoption, mass deployment, return

Lead users



Note: Lead users are not necessarily the same as edge generation sub-sets.



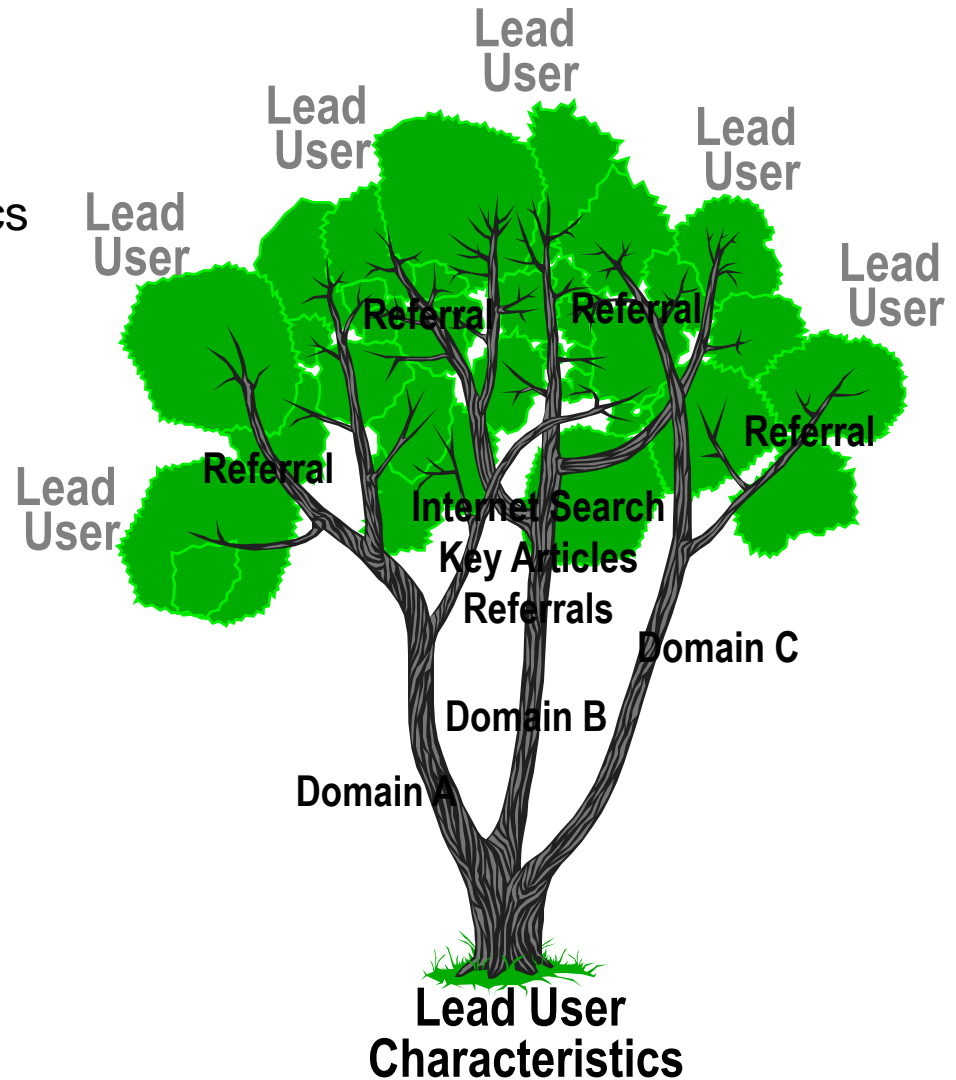
Harvard Business School

Characteristics of lead users

- Critical issues facing the lead users, often life-and-death
- Lead users innovating solutions to address critical issues
- Significant investment being made by institutions to address
- Capture observations across multiple, extreme user domains
- Innovation predictive of adoption, mass deployment, return

Finding lead users

- Identify key lead user characteristics
- Brainstorm lead user domains
 - Target market
 - Analogous markets
- Search for contacts (networking)
 - Internet
 - Key articles
 - Personal referrals
- Tailored interviews
 - Preparation required
 - Quickly describe the why
- Rate knowledge vs. innovation



Players

- Lead User project team:

Lead
 Stephen Woodburn – IBM IGS

Team Players
 David Lamborn - IBM ibm.com SDT
 Sonal Starr - IBM ibm.com SDT
 Josephine Guevarra – IBM CHQ Marketing
 Joseph Pesot – IBM SWG

Sponsor and non-traditional methods SME
 Anthony D. Hall – IBM ibm.com SDT
 Lee Deirdorff – VP ibm.com, GWS&E
- Leverage User engineering core model team, primary leads for workshop materials creation and consult
- Susan Hiestand and Joan Churchill of LUCI to advise
- Eric von Hippel of MIT Sloan School of Management and LUCI to advise

Workshop objectives

- Define the **roles** of future web users, in their interactions with IBM
- Define the **goals** of future web users in their interactions with IBM
 - Identify logical goal groupings
 - Identify relationships between goals and goal groupings
- Describe the optimal **experience** users will require in their interactions with IBM
 - User-system interactions across time
 - Devices, objects
 - Connection types/schemes
- Validate and challenge Fusion One user engineering models

Workshop methodology and materials

- Process: facilitated, small group problem-solving >> share and discuss
- Day one
 - Agenda
 - Introductions and demonstrations by lead users
 - Lead users divided into Fixed and Mobile teams
 - User role identification - Lead User Tree activity
- Day two
 - Innovation en vivo – Facilitated challenge, creation, breakthrough capture
 - Readouts from lead user teams
 - Total Team Dinner
- Day three
 - Introduction to One IBM Web Experience user engineering models
 - Review of Fusion One models by lead user teams
 - Application of thinking from lead users to breakthrough frameworks
- Materials
 - Lead user domain model
 - User goal model (higher order view, detailed view as back-up)
 - Conceptual framework and visualizations

Lead user critical needs: fuzzy FLEX boundaries

IBM value space: Corporate web-based services to support human goals in learning, commerce, IT availability and support to foster relationships between major corporation and clients

- Handle lots of data
 - Search through it, wayfind (traversing data), send it, analyze it, etc.
- Multi-modal (visual and auditory)
 - OnStar, cell phones w/screens, mobile web apps., etc.
- Multi-media intensive (static graphic >> motion video)
 - Gauges, clusters, waveforms, constellations, pictures, animations, scrolling (tickers, seismic), movies, etc.
- Real-time, near real-time
 - Support calls, betting, situational awareness, etc.
- High need to be connected: Person ↔ Person, Person ↔ Data, Data ↔ Data
 - Via: internet, cell phone, Blackberry, pagers, intelligent bots, walkie-talkies, etc.
- Above dimensions performed in one or more fields:
 - Healthcare
 - Telecommunications (voice+data end use, e.g., VoIP, LBS)
 - Work/lifestyles

Next steps

- Mine results for value
 - Review with IBM web strategists and technologists
- Apply findings to modify Fusion 1 user goal modeling
- Extrapolate findings to guide Fusion 2 modeling
- Explore potential alliances and follow-on projects



Background

The Lead Users
Workshop protocols and stimuli

Lead Users in extreme fields (identified)

E. von Hippel



Stephen Woodburn
Anthony Hall
Sonal Starr
David Lamborn
Josephine Guevarra



5:35 p.m. February 24, 2000



Harvard
Business School



- Auto Telematics (2)
- Economic Trading (1)
- Remote Medicine (3)
- Storm Chasers (1)
- Law Enforcement (3)
- Animal Tracking (3)
- Hi-tech agriculture (1)
- Oceanic & Planetary Exploration (3)
- Sports Mgmt Technology (1)
- Entertainment Technology (3)
- TV News Production (2)
- Climatological Modeling (2)
- Artificial Intelligence (2)





Thanks

Additional Information Available

ibm.com

the power of one

Stephen Woodburn
Anthony Hall
Sonal Starr
David Lamborn
ibm.com Strategic Design Team