



PRAJA

Digital Experience: Better Than Being There.

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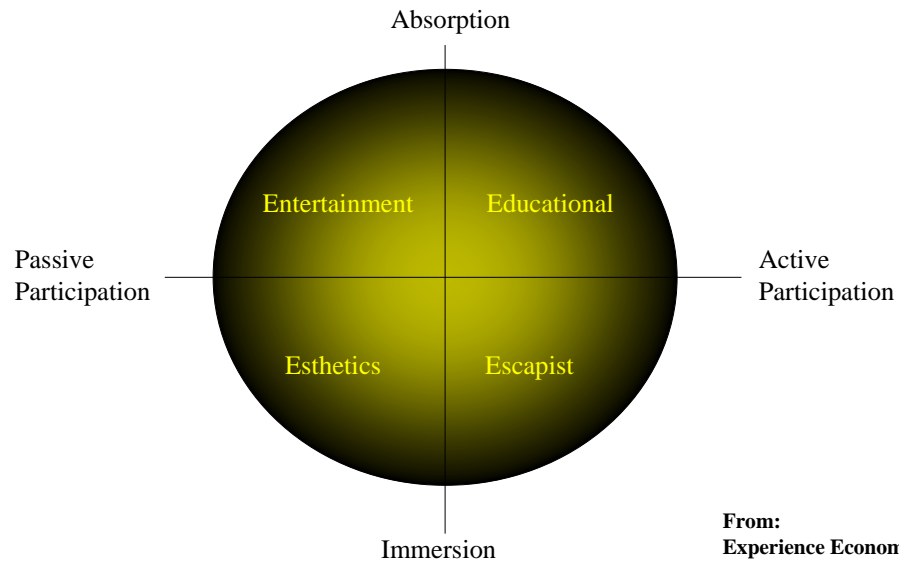


Experience

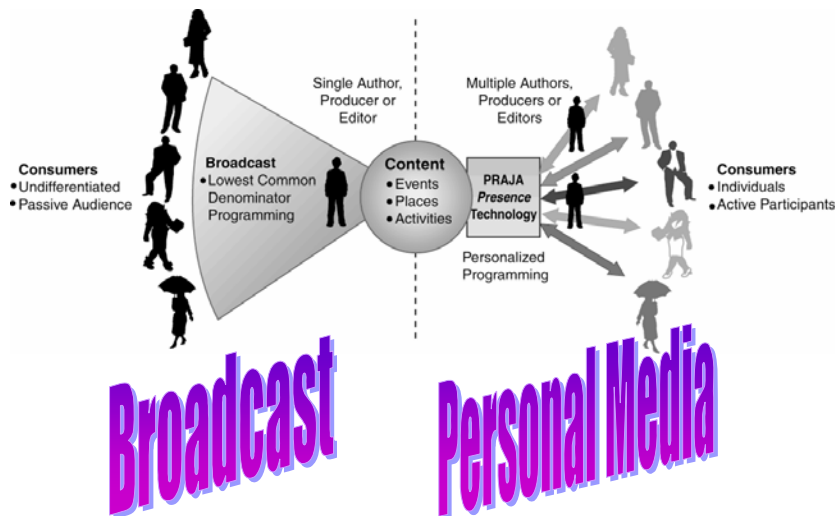
- Direct Observation and Participation
- Two Modes
 - Being there
 - Immersed in the environment
 - Can use your 'senses'
 - Can decide which 'view' of the environment to experience
 - Remote experience
 - Sensors
 - Model of the environment
 - Communication medium
 - User Interaction



Nature of Experiences



Event Experience





Major Inventions

Invention	Application Impact
Languages	Communicate symbolic experiences
Written Languages	Record Symbolic experiences
Paper	Portability
Print	Mass distribution
Telegraph	Remote narrow communication
Telephone	Remote analog communication
Radio	Analog broadcasting of sound
Television	Analog broadcasting of Sight and Sound
Recording media	Analog recording
Digital processing	Machine enhancement and processing
Internet	Multimedia communication

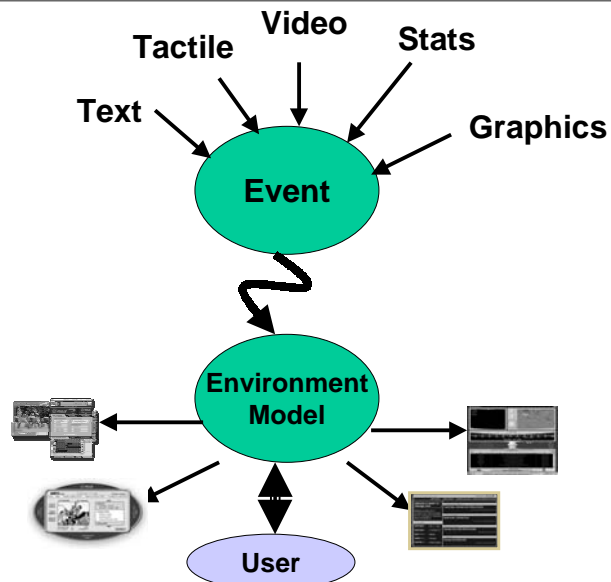


Components of Experience

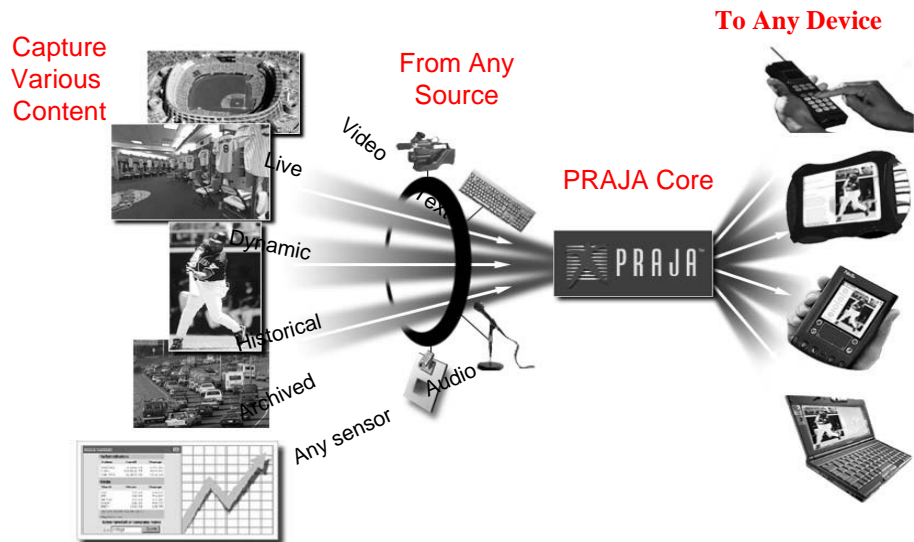
- **Assimilation of sensed information to form Environment model.**
- **Communication of model and sensed data.**
- **Participation or Interaction environment for a user.**
- **Presentation of the correct 'view' to the user.**



Digital Experience



Creating Experiences





Towards Experience on Internet

Data

Information

Experience

Experience:
Direct observation or
participation

Information:
Search, specialized sources

Data:
Text, Statistics, Sensors (Video)

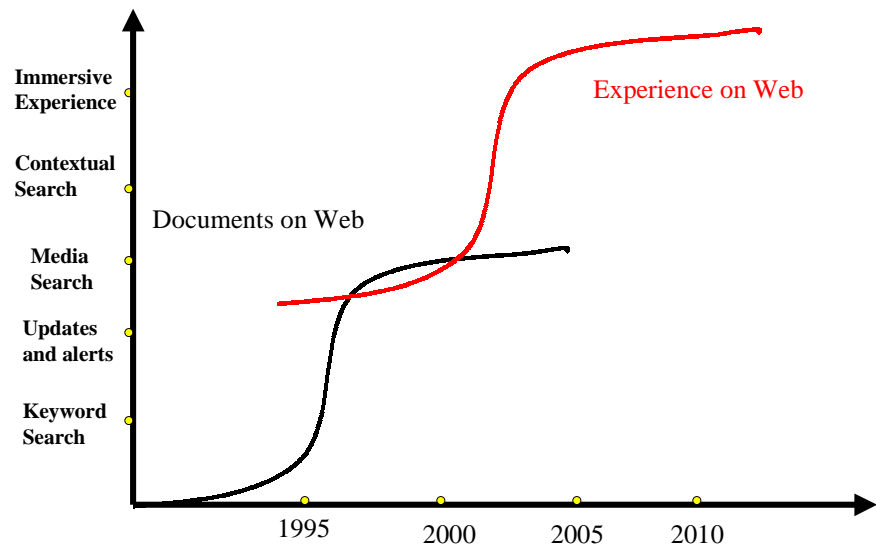


The Current DocumentWeb:

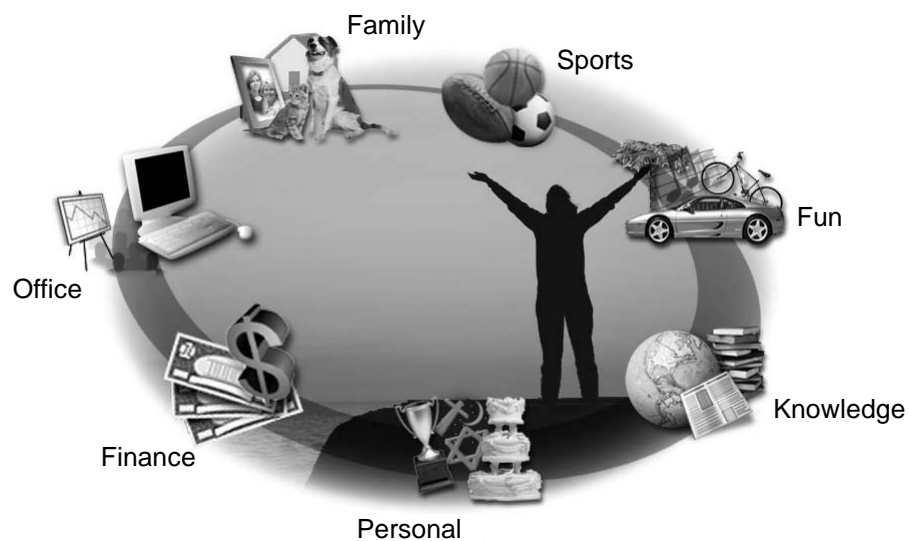




Strategic Inflection Points



Needed: EventWeb





Maximizing the Value of Content

$$\blacksquare \text{ Value} = \text{Assets} \times \text{Reconfigurability}$$

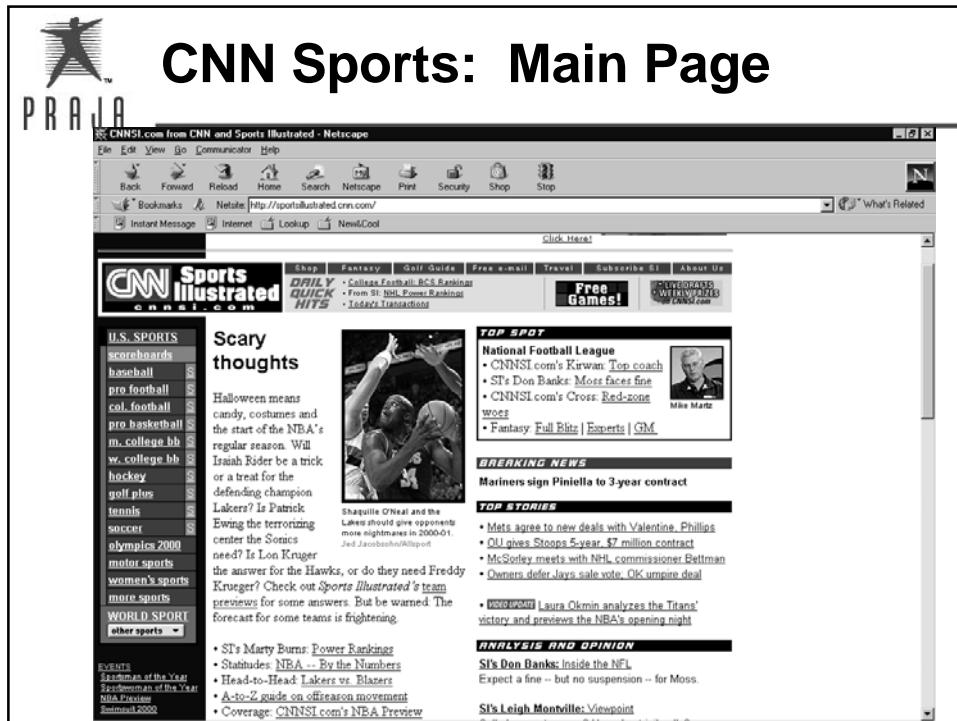
For both Live and Archived content.



CNN Sports: Multimedia Central

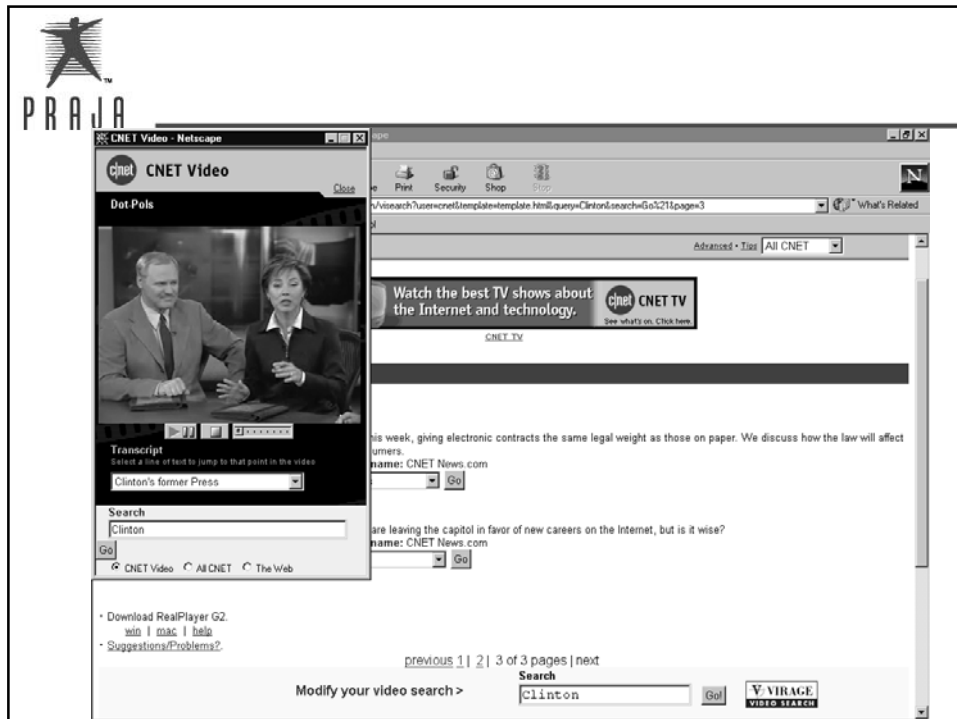


CNN Sports: Main Page



Video Search





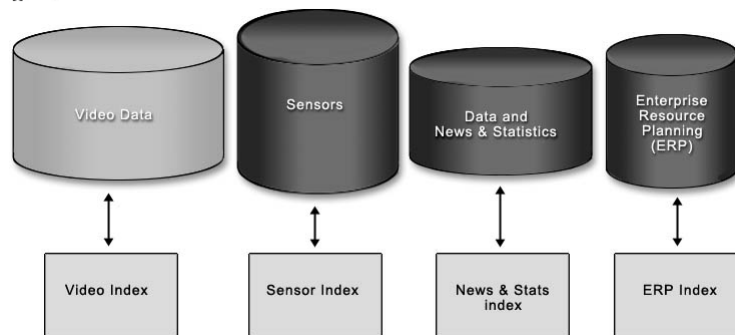
Unified Indexing

- Should not use idiosyncrasy of a medium
 - Video: time, frame number; Text: page, line; ...
- Should be independent of a medium
- Should allow indexing into all media

Event hierarchy is the best 'unified indexing'.



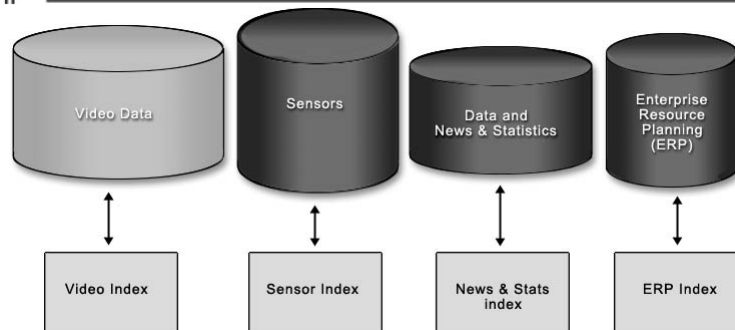
Current Indexing Approaches



- Different databases have different indexing
- Assets are generated at different time and at different place and dumped in the 'warehouse'
- No unified indexing approach



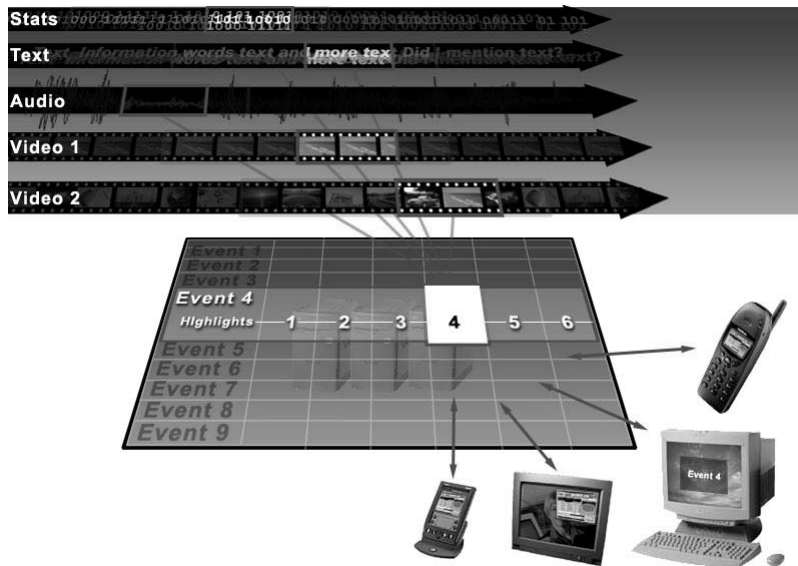
Unified Indexing



Meta Index based on Event-graph



Event Indexing



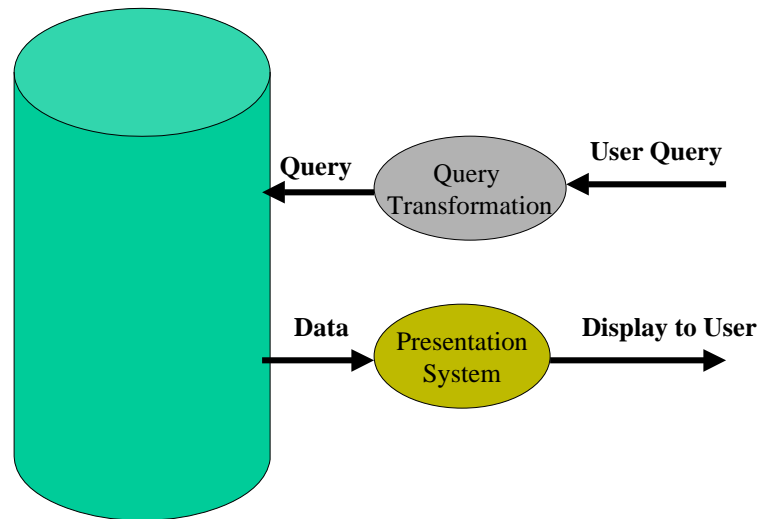
Contextual Search

- Context = (person, location, time, situation)
- Person = (set of preferences, personal data)
- Situation = (weighted activity history)

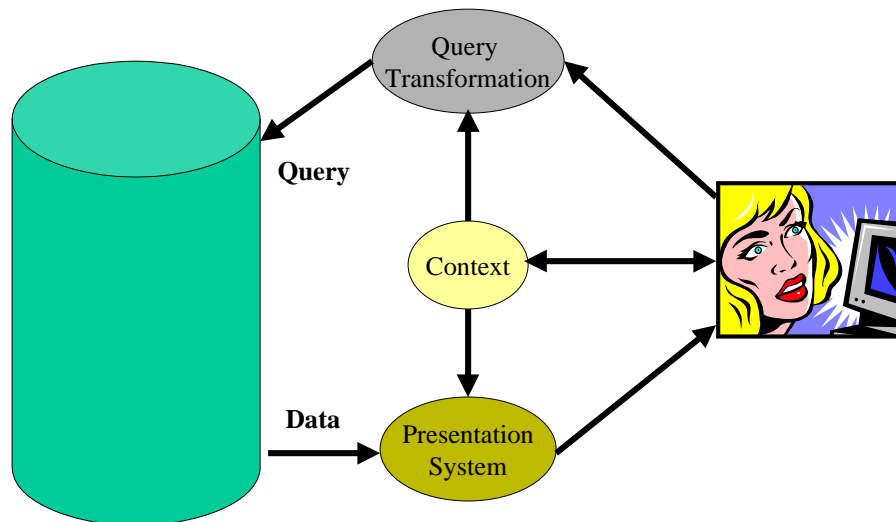
- Contextual Search = Search in Context
- Contextual Inference = Anticipation

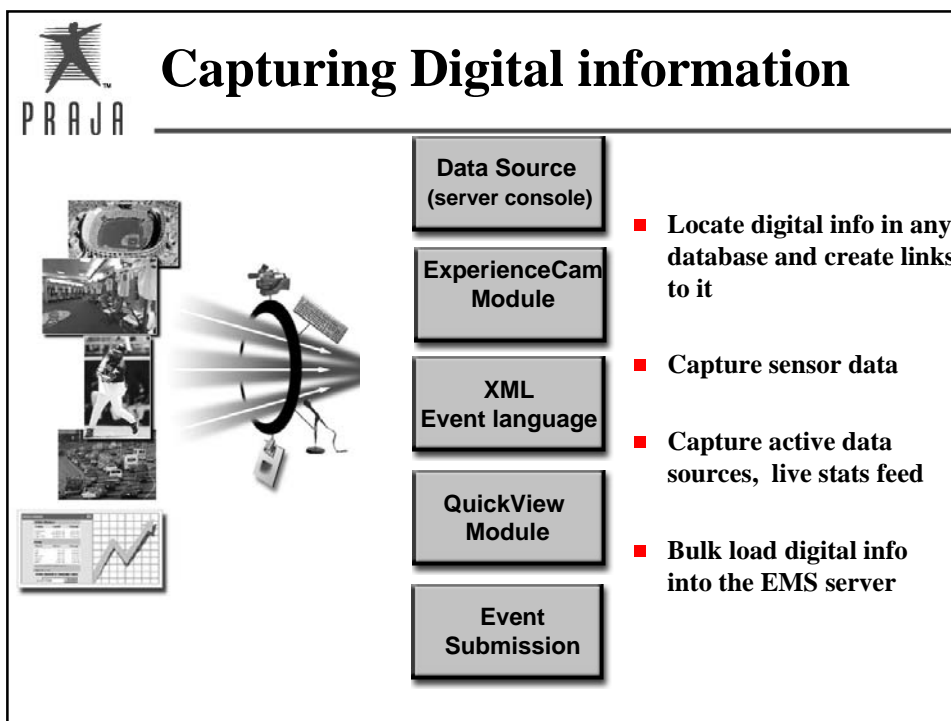
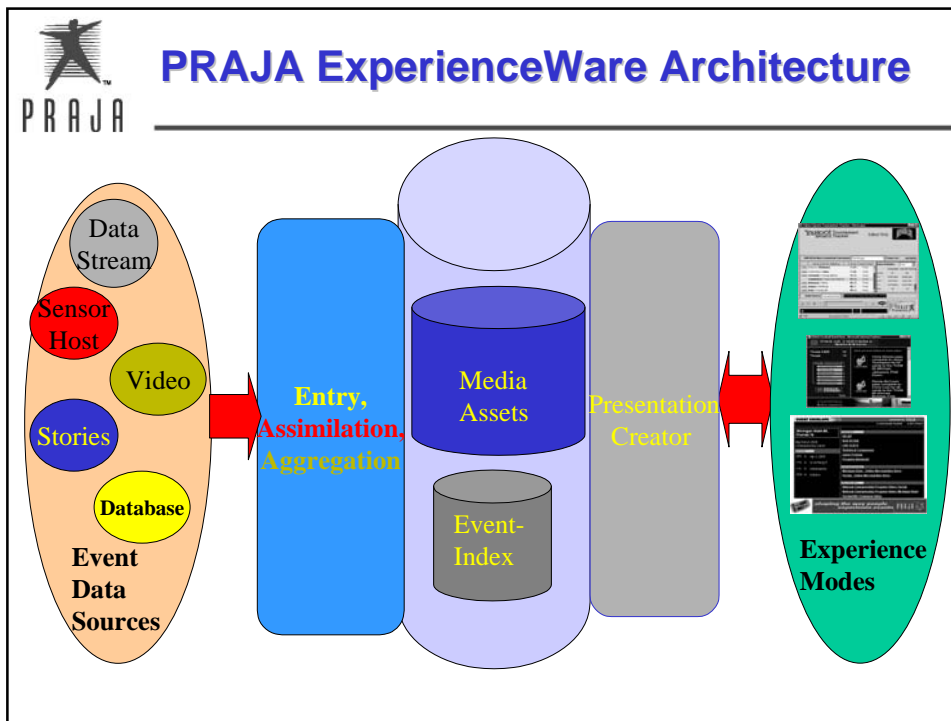


Query Processing



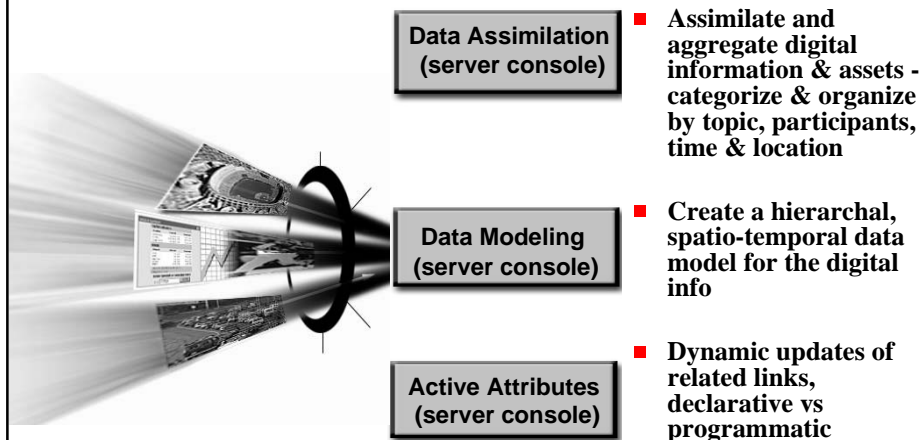
Contextual Query Processing



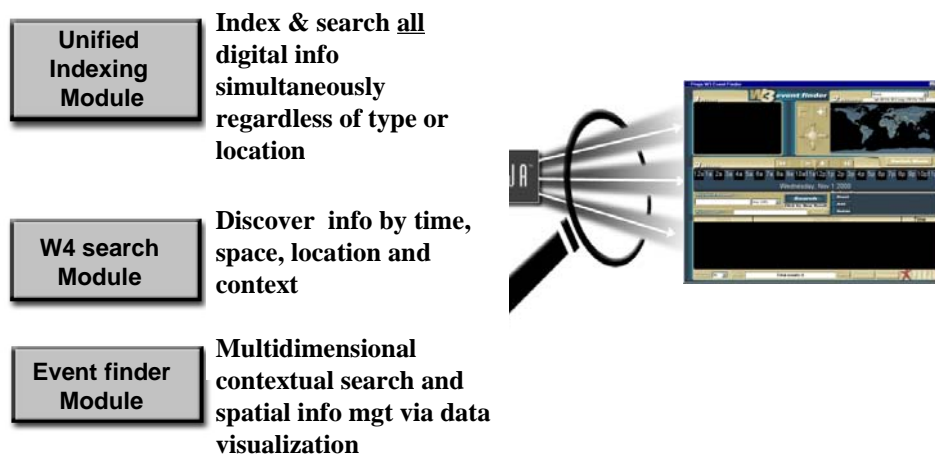




Data Model and data assimilation



Indexing and Navigation





Presentation

Customize and personalize
entire front end look and
feel, including by user
role & preferences

Render data in multiple
formats to any device

Display live updates
send alerts to cell phones,
pagers

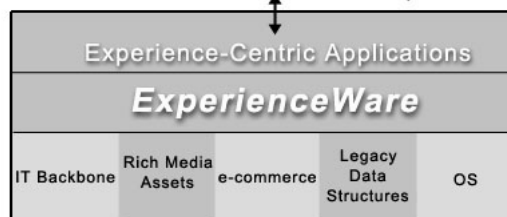
Tag library
(jsps & java beans)

Sample
templates

Notification
(wap)

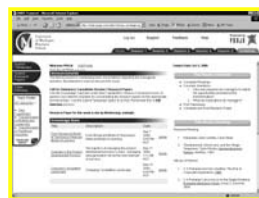
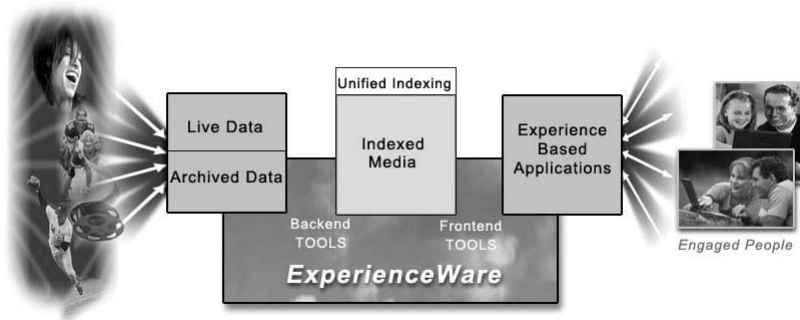


PRAJA's Solution: **ExperienceWare**





Rapid Experience Development



Knowledge Discovery



Live Experiences

ExperienceWare
One Platform... Infinite Possibilities

New Analytic Tools



Archived Experiences





PRAJA's Customers



University of Michigan Business School



W3 Search: Contextual Search






Time Machine - Replay



Trackers

GAMES PLAYERS

Weekly Schedule

Select a Week

Season Schedule

Select a Team

Week II

Sunday, November 21			Carolina	13	20	Dallas	13	40
Detroit	13	F	Cleveland	12	26:30	Arizona	12	6:45
Green Bay	12							
Pittsburgh	38	F	Indianapolis	0	20	Baltimore		4:05
Tennessee	16		Philadelphia	14	28:20	Cincinnati		
Seattle	20	F	New England	3	20	New York Giants		4:15
Kansas City	17		Miami	17	34:10	Washington		
Atlanta	3	1Q	Chicago	19	30	New Orleans		8:20
Tampa Bay	0	34:10	San Diego	13	18:30	Jacksonville		
Buffalo	0	1Q	St. Louis	24	40	Monday, November 22		
New York Jets	7	32:30	San Francisco	21	4:23	Oakland		6PM
						Denver		

Last Updated 11/21/99 3:30PM

Bye Week=Minnesota

Voodoo3.
3D PC accelerators
So powerful, it's kind of ridiculous.



ALERT HELP



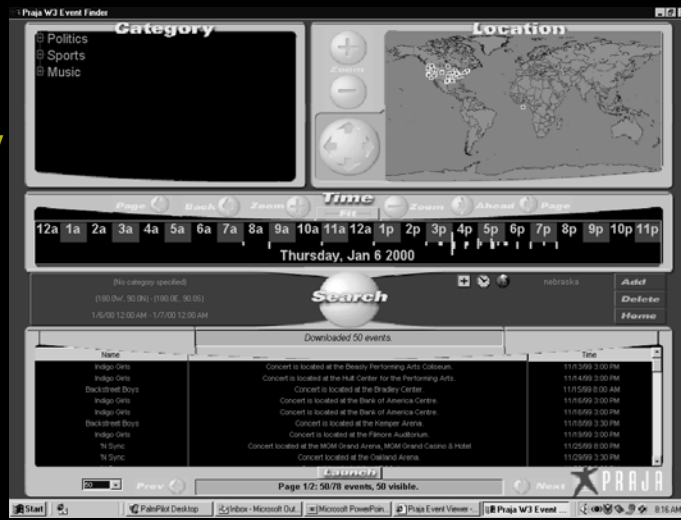
ExperienceWare: A Presentation Module

Visual Contextual Explorations

Context Visualization

Knowledge Discovery

Insights Building



Experience Capsules: Forming Communities



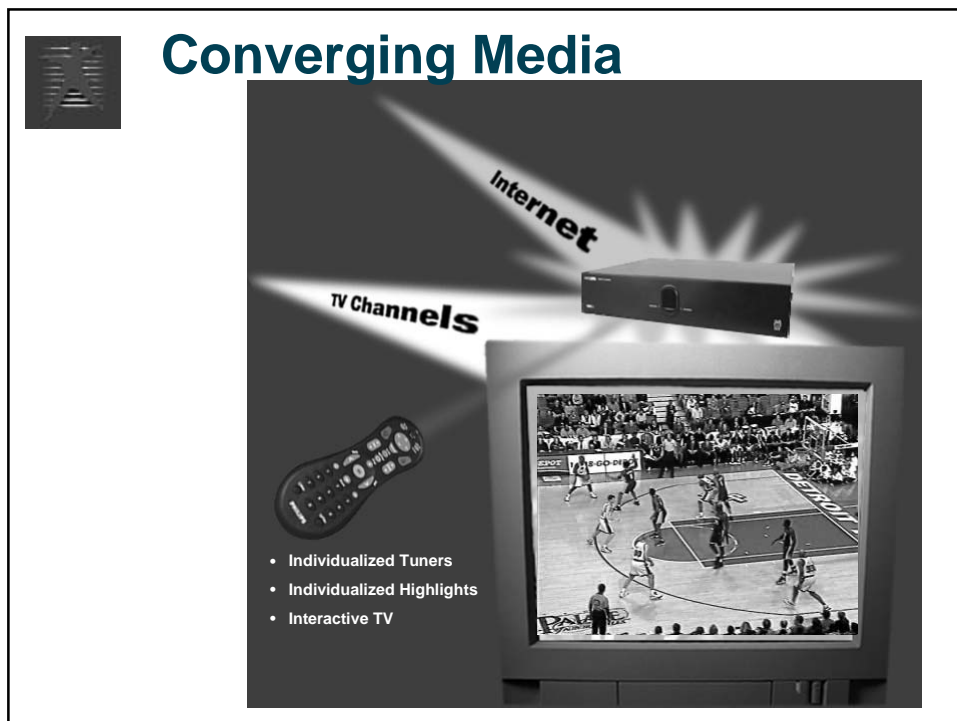
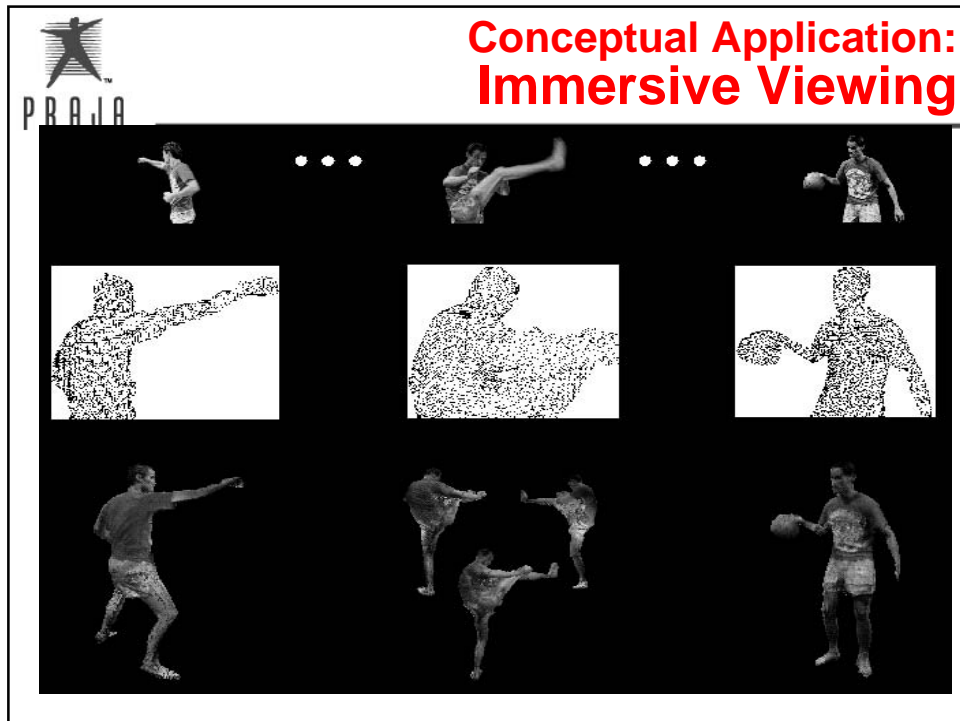


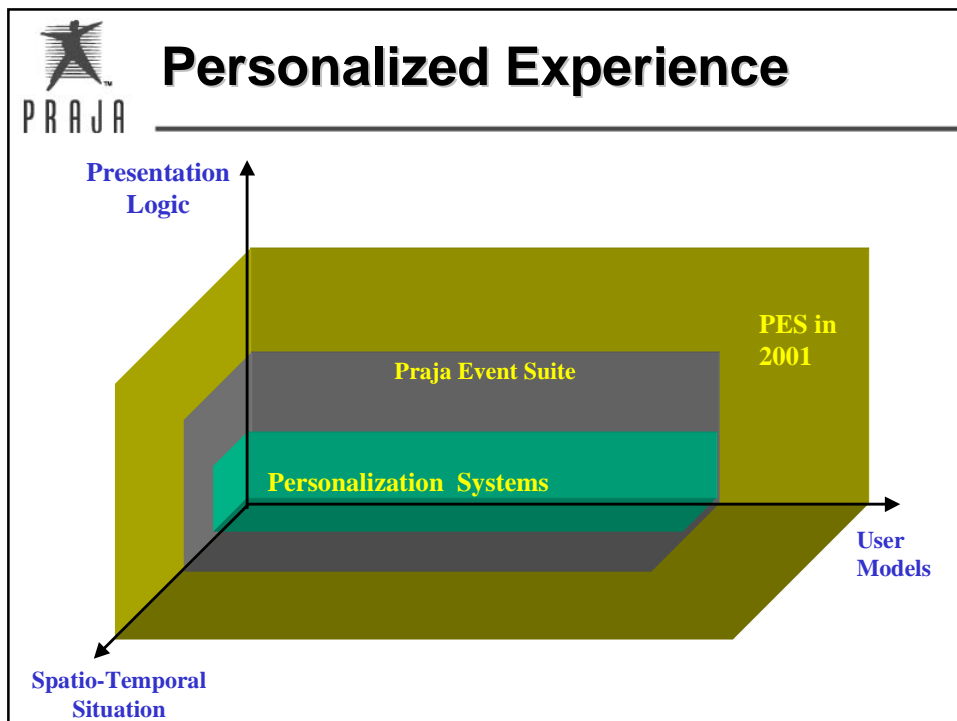
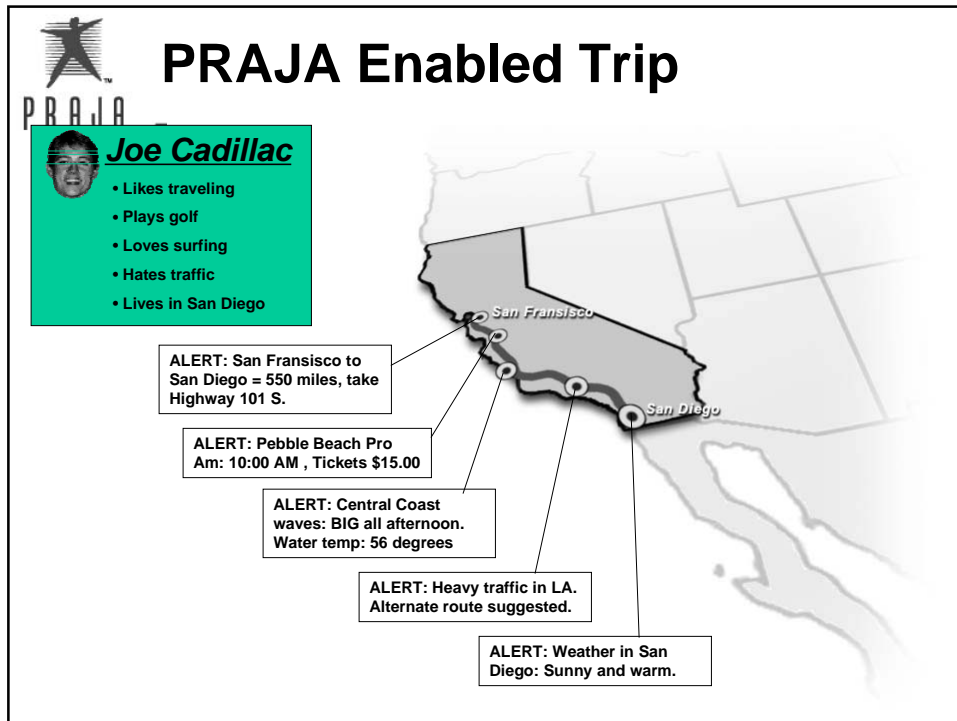
Tomorrow



Conceptual Application: Multiple Perspective Interactive Video

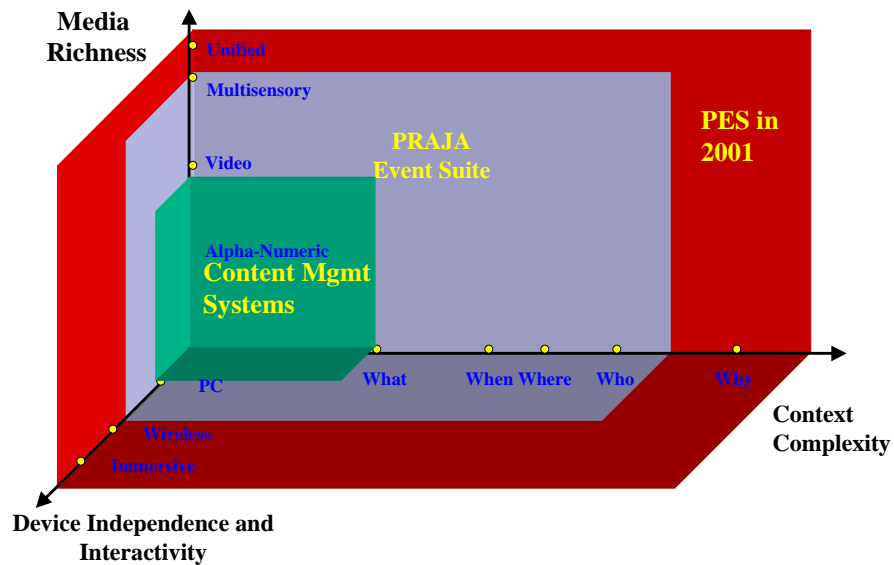








Content Management Systems



Research Issues

- Assimilation of disparate data
- Unified indexing
- Contextual approaches
- Presentation for experience

PRAJA is interested in research partnerships.



For more information, contact

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