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

From:
Experience Economy
By Pine and Gilmore

Event Experience
Major Inventions

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

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

Event

Environment Model

User

Tactile  Text  Video  Stats  Graphics

Creating Experiences

Capture Various Content

From Any Source

PRAJA Core

To Any Device

Any sensor  Audio  Video  Text  Archival
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

Documents on Web

Experience on Web

Needed: EventWeb
Maximizing the Value of Content

\[ \text{Value} = \text{Assets} \times \text{Reconfigurability} \]

For both Live and Archived content.

CNN Sports: Multimedia Central
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
Capturing Digital information

- Locate digital info in any database and create links to it
- Capture sensor data
- Capture active data sources, live stats feed
- Bulk load digital info into the EMS server
Data Model and data assimilation

- Assimilate and aggregate digital information & assets - categorize & organize by topic, participants, time & location
- Create a hierarchal, spatio-temporal data model for the digital info
- Dynamic updates of related links, declarative vs programmatic

Indexing and Navigation

- Unified Indexing Module
- Index & search all digital info simultaneously regardless of type or location
- W4 search Module
- Discover info by time, space, location and context
- Event finder Module
- Multidimensional contextual search and spatial info mgt via data visualization
**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

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**PRAJA’s Solution: ExperienceWare**

Experience-Centric Applications

<table>
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<th>IT Backbone</th>
<th>Rich Media Assets</th>
<th>e-commerce</th>
<th>Legacy Data Structures</th>
<th>OS</th>
</tr>
</thead>
</table>

Personalized Experiences
Rapid Experience Development

ExperienceWare
One Platform... Infinite Possibilities

Knowledge Discovery
Live Experiences
New Analytic Tools
Archived Experiences
PRAJA’s Customers

ZURICH
FINANCIAL SERVICES

GM

Yahoo!

FOX

DISH

Palacenex

Cricinfo

University of Michigan Business School

CBS

Ice Palace

broadcast

NCAA

FOOTBALL

W3 Search: Contextual Search

W3 Search

Category

Location

Time

Thursday, Jan 5 2006

Search

Downloaded 13 results

Category

Page 1/8

Next 10

Previous 10

Refresh Page

Add to My Search

Remove from My Search

Search

Sports

Movie

Music
Time Machine - Replay

Trackers

Weekly Schedule

Games This Week

Week II
Sunday, November 21
- Denver 13 vs. Carolina 13, 20:00
- Miami 12 vs. Cleveland 12, 26:00
- Pittsburgh 16 vs. Indianapolis 0, 20:00
- Philadelphia 14 vs. Buffalo 20, 20:00
- Kansas City 17 vs. New England 3, 20:00
- Miami 17 vs. New York Giants 20, 20:00
- Chicago 19 vs. Atlanta 22, 10:00
- San Diego 18 vs. Tampa Bay 17, 18:30
- St. Louis 26 vs. Buffalo 0, 10:00
- San Francisco 42 vs. New York Jets 7, 32:30

Season Schedule

Select a Team

Dallas 13 vs. Arizona 12, 6:45
Baltimore vs. Cincinnati 4:05
New York Giants vs. Washington 4:15
New England vs. Jacksonville 9:20
San Diego vs. Oakland 6PM

Last Updated: 11/21/93 3:30PM

By Week/4:

3dfx 3D PC accelerators
So powerful, it's kind of ridiculous.
ExperienceWare: A Presentation Module

Visual Contextual Explorations

Context Visualization
Knowledge Discovery
Insights Building

Experience Capsules: Forming Communities
Tomorrow

Conceptual Application: Multiple Perspective Interactive Video
Conceptual Application: Immersive Viewing

Converging Media

- Individualized Tuners
- Individualized Highlights
- Interactive TV
**PRAJA Enabled Trip**

**Joe Cadillac**
- Likes traveling
- Plays golf
- Loves surfing
- Hates traffic
- Lives in San Diego

**Alerts:**
- San Francisco to San Diego: 550 miles, take Highway 101 S.
- Pebble Beach Pro Am: 10:00 AM, Tickets $15.00
- Central Coast waves: BIG all afternoon. Water temp: 56 degrees
- Heavy traffic in LA. Alternate route suggested.
- Weather in San Diego: Sunny and warm.

**Personalized Experience**

**Presentation Logic**

- Praja Event Suite
- Personalization Systems
- User Models

**Spatio-Temporal Situation**

**PES in 2001**
Content Management Systems

PRAJA

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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