



Panel on International Cooperation

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Participants

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Motivation

- Human Language Technology (HLT) research is international
 need to share experiences
 - US DARPA HLT programme
 - EU HLT programme under FP5-IST
 - Francophone AUF programme
 - European 6th Framework program (FP6), planned for 2003
- Commercial, government, and academic needs for coordination and collaboration (e.g., localisation industry (LISA and LRC))
- Sharing resources and plans is cost effective and will accellerate progress



Purposes

- 1. Share information, experiences, and plans
- 2. Identify collective concerns and needs
- 3. Identify opportunities for further collaboration
- Existing resources and ones under development
- Evaluation methods and benchmarks
- Unresolved research problems and/or areas



Questions

- 1. What language resources (LR) and evaluation are your programs and institutions relying upon?
- 2. What should be a minimal LR set for each language?
- 3. What are your current programs in the collection, creation, and dissemination of LR?
- 4. What are impediments to advancing LR (financial, technical, legal) and evaluation?
- 5. What tools, reusable components and abstract architectures are available or being planned?
- 6. Are there any successes in international sharing and cooperating regarding LR and evaluation?
- 7. What are your future plans for LR and evaluation?

Multimodal Research Roadmap 2002-2005



Mobile, Human-Centered, and Intelligent Multimodal Interfaces

Adequate Corpora for MM Research

Computational Models of Multimodality

Multimodal Interface Toolkit Dagstuhl Sem Fusion and Coordina in Multimodal Interaction

200

200

Standards for the Annotation of MM Training Corpora

Multimodal Barge-In

Mobile Multimodal Interaction Tools

Situated and Task-Specific MM Corpora Multiparty MM Interaction

Multimodal Toolkit for Universal Access

Models of MM Mutual Disambiguation

Collection of Hardest and Most Frequent/Relevant Phenomena

Decision-theoretic, Symbolic and Hybrid Modules for MM Input Fusion

XML-Encoded
MM Human-Human and
Human-Machine Corpora

Corpora with Multimodal Artefacts and New Multimodal Input Devices

Examples of Added-Value of Multimodality

Models for Effective and Trustworthy MM HCI

Task-, Situationand User- Aware Multimodal Interaction

Common Representation of Multimodal Content

Plug- and Play Infrastructure

Reusable Components for Multimodal Analysis and Generation

Markup Languages for Multimodal Dialogue Semantics

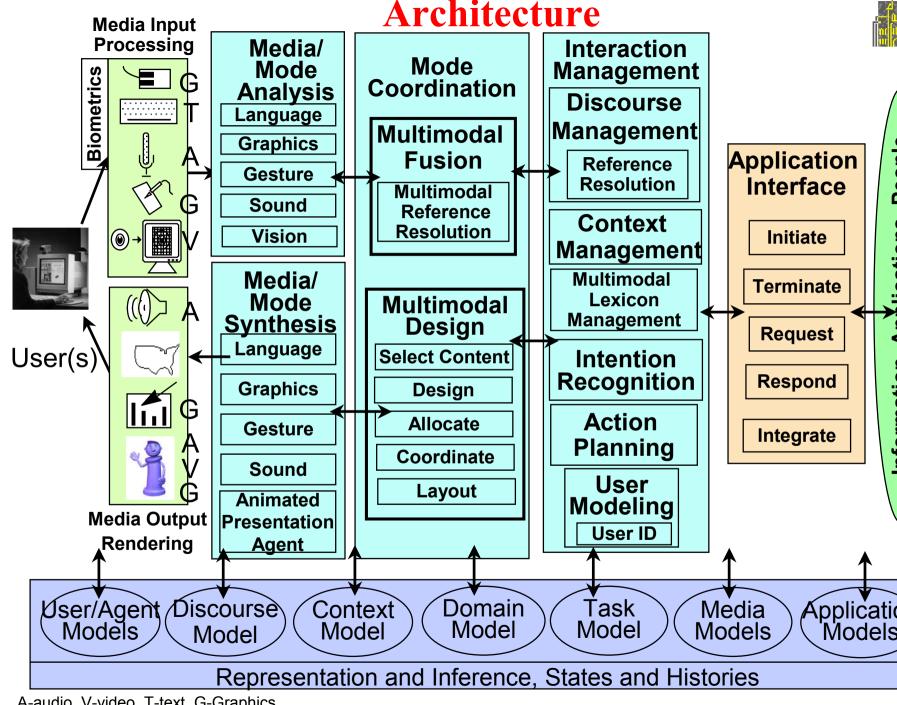
Empirical and Data-Driven Models of Multimodality

Advanced Methods for Multimodal Communication

Toolkits for Multimodal Systems

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200 **Question Answering Roadmap 2003-2006** Shared data, problems, test suites, evaluation at milestones Speed Related Fields Limit HPKB, TDT, D Productive, Quality Q&A Speed **Virtual Ref** Inference Limit Desk, User What If Questions Modeling Modeling **Robust** Measurable Composable NLP Personalized QA **Answers 200 Progress** Toolkit for QA Resource **Collaborative QA** Selection Why Questions Requirements **Methodolgies Constrained QA Answer Multimodal QA** Determination for QA Analysis (Resource/Solution) **Justification** Script/Tem **Answer** Resource & Crosslingual QA **Answer Toplogy Evaluation** Stereotypical and **Feasibility Multilingual QA** Indivdualized QA **How Questions Testing** Question/Answer **Temporal QA** Multisessional QA Empirical Typologies QA Reuse User Task **Evaluation** (including change Typology Modeling Studies Ans QA as Planning detection) Interactive Wizard of Oz Factoi **Answer Fusion Collect QA Create QA Sets** Dialog **QA Sets** Questio Interoperability Logs Task **Quality Assurance Public Taxonomies** Model **Semi-structured** (e.g., OpenDirectory in RDF) User Data Reuse across Expectation sessions **TIMEBANK** TIMEML Reusable Test Collection "Perspective USC/ISIS Question START. **Web Services BANK" Typology** FaqFinder, (e.g., Google A TREC QA Ionaut. QANDA trec.nist.gov/data/qa.html **Systems** Resources **Methods & Algorithms** (Performance & Eval) (Development, Evaluation)



An Example: Communicator-Compliant Emergency Management Interface



