Good Afternoon, Colleagues

Are there any questions?
Logistics

• Programming assignment 4 - any questions?
Logistics

- Programming assignment 4 - any questions?
- Next week’s readings posted
ACL Desiderata
ACL Desiderata

**Form:** simple, readable, concise, easy to parse and generate, extensible
ACL Desiderata

**Form:** simple, readable, concise, easy to parse and generate, extensible

**Content:** well-defined primitives, flexible content
ACL Desiderata

**Form:** simple, readable, concise, easy to parse and generate, extensible

**Content:** well-defined primitives, flexible content

**Semantics:** unambiguous, address location and time
ACL Desiderata

**Form:** simple, readable, concise, easy to parse and generate, extensible

**Content:** well-defined primitives, flexible content

**Semantics:** unambiguous, address location and time

**Implementation:** efficient, networking issues hidden, amenable to partial implementation
ACL Desiderata

**Form:** simple, readable, concise, easy to parse and generate, extensible

**Content:** well-defined primitives, flexible content

**Semantics:** unambiguous, address location and time

**Implementation:** efficient, networking issues hidden, amenable to partial implementation

**Networking:** usable on top of existing protocols
ACL Desiderata

Form: simple, readable, concise, easy to parse and generate, extensible

Content: well-defined primitives, flexible content

Semantics: unambiguous, address location and time

Implementation: efficient, networking issues hidden, amenable to partial implementation

Networking: usable on top of existing protocols

Environment: interoperability with other languages
ACL Desiderata

Form: simple, readable, concise, easy to parse and generate, extensible

Content: well-defined primitives, flexible content

Semantics: unambiguous, address location and time

Implementation: efficient, networking issues hidden, amenable to partial implementation

Networking: usable on top of existing protocols

Environment: interoperability with other languages

Reliability: reliable, secure, authentication possible, error handling
Three-layer organization

- Content: free-form (domain-dependent)
Three-layer organization

- Content: free-form (domain-dependent)

- *Communication: who is sending, etc.*
Three-layer organization

- **Content**: free-form (domain-dependent)
- **Communication**: who is sending, etc.
- **Message**: performatives and fields (standard)
Three-layer organization

- **Content**: free-form (domain-dependent)

- **Communication**: who is sending, etc.

- **Message**: performatives and fields (standard)

(tell

:sender stock-server
:content (PRICE IBM 14)
:receiver joe
:in-reply-to ibm-stock
:language LPROLOG
:ontology NYSE-TICKS)
Three-layer organization

- Content: free-form (domain-dependent)

- Communication: who is sending, etc.

- Message: performatives and fields (standard)

(tell
  :sender stock-server
  :content (PRICE IBM 14)
  :receiver joe
  :in-reply-to ibm-stock
  :language LPROLOG
  :ontology NYSE-TICKS)
ACLs – Current Landscape

“Languages exist to serve a purpose, namely the communication between willing—and occasionally unwilling—participants”
ACLs – Current Landscape

“Languages exist to serve a purpose, namely the communication between willing—and occasionally unwilling—participants”

- There are different options
- Subtle differences
ACLs – Current Landscape

“Languages exist to serve a purpose, namely the communication between willing—and occasionally unwilling—participants”

- There are different options
- Subtle differences
- Why a standard?
  - What are the pros and cons?
ACLs – Current Landscape

“Languages exist to serve a purpose, namely the communication between willing—and occasionally unwilling—participants”

- There are different options
- Subtle differences
- Why a standard?
  - What are the pros and cons?
- How are they created?
ACLs – Current Landscape

“Languages exist to serve a purpose, namely the communication between willing—and occasionally unwilling—participants”

- There are different options
- Subtle differences
- Why a standard?
  - What are the pros and cons?
- How are they created?
- Sample FIPA applications on resources page
Student-led Discussion

• David Terei: Sort yourselves by age
Student-led Discussion

- David Terei: Sort yourselves by age
- No verbal or written language is allowed.
- Any form of gesturing is OK, except for “skywriting” or writing with one’s finger.
- Other ways of conveying characters are ok.
- All other forms of communication are allowed, be creative.
Soccer server communication

• What is the soccer server communication protocol?

• How does it relate?
Soccer server communication

- What is the soccer server communication protocol?
- How does it relate?
- Does an ACL make sense in the soccer server? If so, under what circumstances?
Soccer server communication

• What is the soccer server communication protocol?

• How does it relate?

• Does an ACL make sense in the soccer server? If so, under what circumstances?

An example protocol