




# Modes of Participation, Identity Creation, and Group Maintenance in Different Technical Discourse Communities

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# What is this all about?

- ◆ Normatively identity-neutral interactions “hide” identity work
- ◆ Identity-oriented purposes are “hidden” in form and function of discourse events
- ◆ Community constructs combine
  - Discourse Communities
  - Epistemic Cultures
  - Communities of Practice
- ◆ Newsgroup analysis will illuminate these themes
  - Research still unfolding

# Newsgroup Backgrounder

- ◆ Newsgroups are subsections of the Usenet system
  - Created in 1979 at Duke University
- ◆ Users read and submit public messages (“posts”) to newsgroups
- ◆ Discussions are threaded
  - Largely driven by news reader client software
- ◆ Still available and see high-traffic use
  - Via portals like Google and Yahoo

# How was that again?

- ◆ Compare newsgroup discourse for C++ and Lisp
- ◆ Analyze all posts for 15 days: 7/1/2008-7/15/2008
  - comp.lang.c++ (1440 messages in 238 threads)
  - comp.lang.lisp (649 messages in 95 threads)
- ◆ Why these newsgroups?
  - Significantly different focus of each group
  - Both are high-traffic (in top ten within comp.lang.\* branch)
  - C++: Largest single subscriber base in comp.lang.\*

# What Do Newsgroups Do?

- ◆ “Official” or Normative purposes
  - Solve intractable technical questions
  - “Be there for the newbie”
- ◆ Identity-oriented purposes
  - Determine what counts as knowledge
  - Create and maintain group mythologies
  - Pass-on shared history
  - Validate and maintain practices
  - Establish individual credibility
  - Maintain and strengthen boundaries with other languages

# Technical Foundations... Mostly

- ◆ C++
  - High-level language, Object-oriented
  - General purpose
    - ◆ Commercial
  - Created by Bjarne Stroustrup at Bell Labs in 1979
  - ANSI/ISO standards maintained
    - ◆ Strongly “defended” or “protected”
- ◆ Lisp
  - Early high-level programming language
  - Central to classic AI research
    - ◆ Academic
  - Created by John McCarthy at MIT in 1958
  - Many sub-dialects, with two dominant
    - ◆ Common Lisp, created 1984
      - ANSI standard established 1994
    - ◆ Scheme, created 1970s
      - IEEE standard established 1990

# Newsgroup "Style"

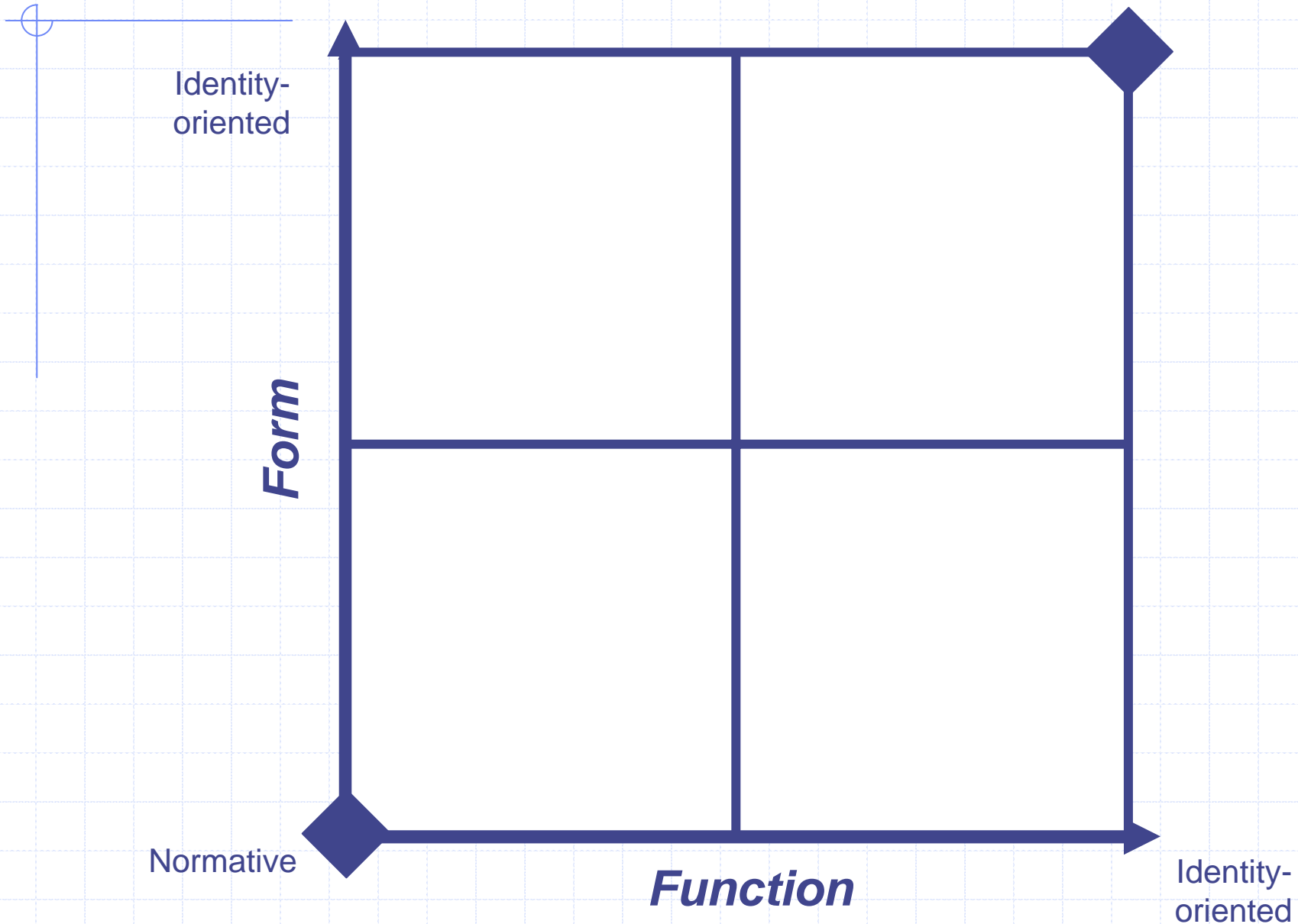
- ◆ Both unmoderated – community and individual policing
- ◆ Both dominated by small group
  - C++ top 5 = 24%; Lisp top 5 = 26%
  - C++ dominated by one guy (James) at 10.83%
- ◆ `comp.lang.c++`
  - Standards for interaction published
  - Regular reference to "the standard"
  - Regular answer writers never start threads
- ◆ `comp.lang.lisp`
  - No official standard of interaction
  - Less policing of off-topic posts
  - References to standards more diffuse
  - More "professionals" initiate posts
- ◆ Differences are qualitative, rather than quantitative

# Analyzing the texts

- ◆ From & Function on a spectrum
  - “Normative” to “Identity-oriented”
  - Differs from “discourse”, “style”, and “genre”
- ◆ Form
  - Modes of expression
    - ◆ Genre / generic structures (e.g., “article”)
    - ◆ Grammatical forms (e.g., “interrogative” or “third person”)
    - ◆ Literary forms (e.g., “irony” or “sarcasm”)
    - ◆ Cultural references (e.g., *Hitchhiker’s Guide to the Universe*)
- ◆ Function
  - Relevance to the community’s normative goals for the discourse event
- ◆ Re-emphasizes that differences are qualitative



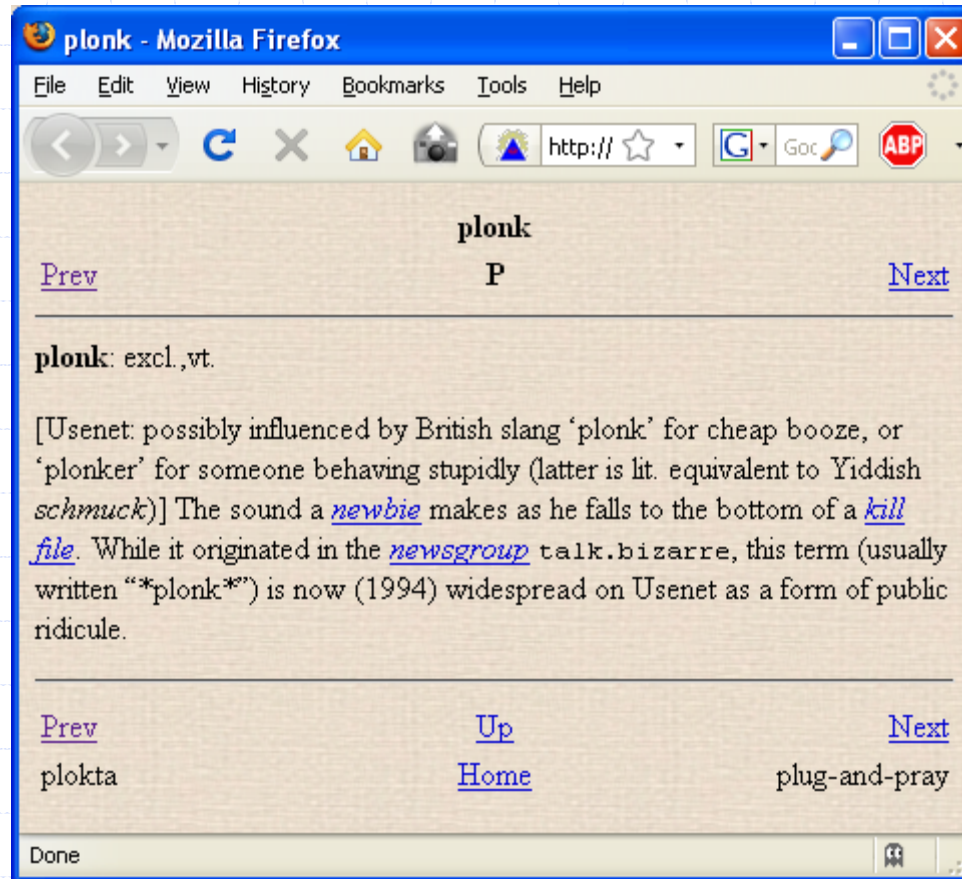
# Visualizing Discourse Events



# Hunting of the Snark



# Self-regulation by public ridicule



# A complete picture

- ◆ Understanding technical communities requires synthesis of three frameworks for community analysis
  - Programming newsgroups...
    - ...Are fundamentally about discourse (DC)
      - ◆ Traditionally, as a text-based community
      - ◆ Topically, since programming is a linguistic task
    - ...Create knowledge (EC)
      - ◆ Programming methods
      - ◆ History of programming
      - ◆ What counts as programming culture
    - ...Evaluate, establish, and maintain practices (CoP)
      - ◆ Programming
      - ◆ Community interactions
        - For both newsgroups and physical-space