Flexibility counts more than precision

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- Any serious effort depends on funding (e.g. RAGS)
- Participating in an unfunded shared task isn't reasonable (for me)
- Contributing resources and discussions on a Wiki is fine
  - Mumble-86: TAG-based surface realizer
- But BBN is a law firm:
  - We have to bill hours

The price of entry

- A generator's output should be as good as a person's
  - Always grammatical
  - Fits the discourse context.
  - Fluent and cohesive
    - Pronouns, reduced NPs, conjunction reduction, rich repertoire of clause combinations, etc.

- Real sources
  - Doing real work for real (commercial) systems

Variation is essential

- Even read text will vary (bedtime stories)

- People rarely phrase their content the same way every time.

- A generator that didn't vary its output would be unnatural.

  – Synthetic characters for game-based training (NPCs) have to be realistic

These have the same "content"

BBC web page: 1/17/07

- "Apple profits surge on iPod sales"
    - » Clickable title next to graphic on first page

- "Apple reports a 78% jump in quarterly profits thanks to strong Christmas sales of its iPod digital music player"
    - » Summary below the graphic

- "Apple has reported a 78% surge in profits for the three months to 30 December, boosted by strong Christmas sales of its iPod digital music player"
    - » Same content in the full article

Shared data: real texts & contexts

- Start with actual texts that are judged to have the same 'content'

  – Varying in purpose, level of detail, randomly, …

- Parse the texts back far enough that the same source could produce all the variations

  - Every player can use their favorite representation
  - It's a natural task in its own right

"Killer app"

- Regenerating content in different styles for different purposes
  - Initiatives in 'deep' NLU: "Machine Reading", "Learning by Reading"

- E.g. Rough-cut intelligence analyst's reports
  - Read the raw texts of hundreds of news sources, military movement messages, field reports, …
  - Provide tailored summaries (hypertexts)
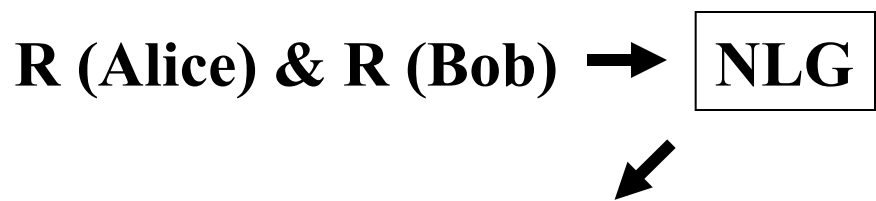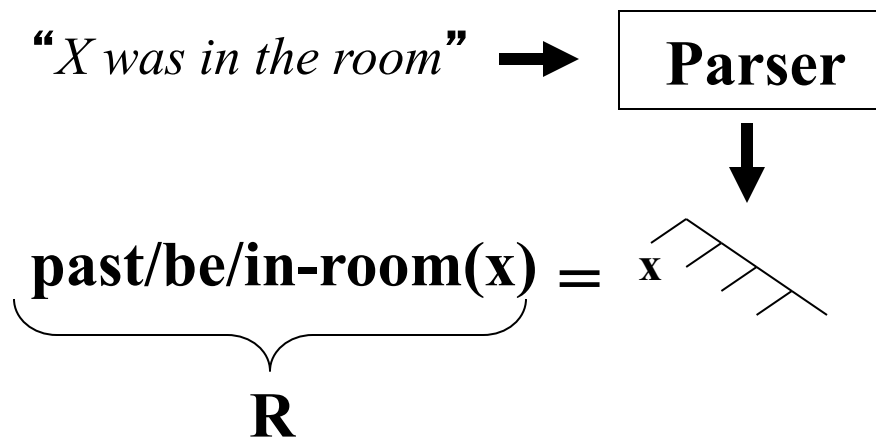 - Gets a handle on the intelligence overload

Questions?
Comments?

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backup

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Flexible natural language generation using linguistic templates

- Provide easy authoring of fluent prose while keeping simplicity of variable substitution seen in XSLT string templates.

- Explicit linguistic form enables optimizations, provides structure needed for synthetic speech.

- Automatically build the templates by parsing ex. with reversible grammar.

- Schematic variation given the context.

"*X was in the room*" ➡ **Parser**

$$\underbrace{\textbf{past/be/in-room(x)}}_{\textbf{R}} = \overset{\text{x}}{\diagdown}$$

R (Alice) & R (Bob) ➡ **NLG**

Alice and Bob were in the room.
Alice was in the room and so was Bob.
Alice was in the room and Bob was there too.
Alice and Bob were both there.
Where were Alice and Bob? In the room.