Formal Foundations for Semi-parsing

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Parsing:

(Boolean grammars:)

\[ A ::= B \]
\[ A ::= B \ C \ D \]
\[ A ::= B \mid C \ D \mid E \ F \]
\[ A ::= (B \mid (C \& D) \mid E \ F) \& \neg X \]

(conjunction, negation, disjunction, seq. composition of symbols)

Lexical analysis:

- grep
- sed
- awk
- perl
- regular expressions
- search & replace

(string manipulation)

(hard to automate for legacy code, unknown dialects, language cocktails, ...)

Parsing schemata:

- deduction system
- item set (parse forest specs)
- hypotheses set
- deduction steps
- inference relation \( I \)
- ...

为中国黑龙

Chinese black dragon

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Boolean grammars by Alexander Okhotin (CSR 9, 2013)

Parsing schemata by Klaas Sikkel (Springer, 1997)