AnswerQuest: A System for Generating Question–Answer Items from Multi-Paragraph Documents

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We combine question generation (QG) and question answering (QA) to produce Q&A pairs for any document.

Question Answering

- Representing documents with BERT encoding improves QA

| Method                      | EM  | F1  |
|-----------------------------|-----|-----|
| BiDAF Shared-Norm (Clark and Gardner, 2018) | 64.08 | 72.37 |
| BERT Shared-Norm (Our model) | 72.85 | 80.58 |

QA accuracy on SQuAD-1.1

Question Generation

- Observing questions generated from linguistic rules improves QG

| Method                      | Rating | Has Ans |
|-----------------------------|--------|---------|
| Baseline seq2seq            | 2.813  | 0.225   |
| Rule-augmented seq2seq      | 3.140  | 0.399   |

Human ratings for QG on SQuAD-1.1

Generating Q&A Pairs

- People gained significant knowledge about a document just by reading generated Q&A pairs (without reading the document itself)

Human accuracy on quizzes about documents before and after observing generated Q&A pairs

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