An unprecedented growth of educational content (e.g., textbooks, blogs, lectures, research papers) outpaces the production of questions that accompany them.

The traditional approach of manually producing quiz questions is time-consuming and requires extensive effort by human domain experts.

We want to automatically generate questions!

**Motivation**

**Problem Formulation & Contribution**

- Textbook in, factual question out.
- Novel neural-network model with LSTM networks, attention mechanism and copy mechanism.
- We perform some of the first empirical evidence that our model, trained on general purpose datasets, works on educational data.

**Summary & Outlook**

- We developed a novel neural network model for question generation for educational content.
- We would like to incorporate students’ learning analytics when generating questions.
- We would like to develop quality control mechanisms to filter out not so good questions.

**Example Generated Questions**

**Intro to Sociology:** With so many people using social media both in the United States and abroad, it is no surprise that social media is a powerful force for social change.

- **Baseline 1:** What is social media a powerful force for?
- **Baseline 2:** What was the name of the act that caused a white nation to become one of the identifying characteristics of the age of Jackson?

**Intro to Biology:** Oxygen is necessary for cellular respiration; plants use oxygen to store energy in the form of ATP.

- **Baseline 1:** What do plants use oxygen to store energy in?
- **Baseline 2:** In what form is oxygen used to store energy?
- **QG-Net:** Plants use oxygen to store energy in the form of what?

**U.S. History:** The 1830 Indian removal act and subsequent displacement of the Creek, Choc-taw, Chickasaw, Seminole, and Cherokee tribes of the southeast fulfilled the vision of a white nation and became one of the identifying characteristics of the age of Jackson.

- **Baseline 1:** What did and subsequent displacement of the Creek, Choc-taw, Chickasaw, Seminole, and Cherokee tribes of the southeast fulfill the vision of a white nation?
- **Baseline 2:** What was the name of the act that caused a white nation to become a white nation?
- **QG-Net:** What act became one of the identifying characteristics of the age of Jackson?