Deep Learning for Natural Language Processing (NLP)

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Figure 1. Encoder-decoder architecture – example of a general approach for NMT.
Figure 2. Neural machine translation (without attention)
Figure 3. Attention mechanism
Figure 4. Attention visualization

Image is taken from https://github.com/tensorflow/nmt
Some example outputs

- Original: Họ nghĩ rằng Torosaurus nên được giữ lại còn Triceratops thì bị bỏ đi, nhưng điều đó sẽ không xảy ra đâu.
- Reference: They thought Torosaurus should be kept and Triceratops thrown out but that's not going to happen.
- Predicted: They think <unk> should be <unk> but that's not going to happen but that's not going to happen.
- Google: They thought that Torosaurus should be kept and Triceratops to be removed, but that won't happen.

- Original: Trích dẫn thứ hai đến từ người đứng đầu Cơ Quan Quản Lý Dịch Vụ Tài Chính Vương Quốc Anh.
- Reference: The second quote is from the head of the u.k. financial services Authority.
- Predicted: The second <unk> of the people who started to <unk> the <unk> <unk>.
- Google: The second quote comes from the head of the UK Financial Services Authority.

- Original: Vì trong 4 năm trước, chúng tôi đã quan sát tất cả các thành viên. Tất cả những khuynh hướng để cho ra đời ngay trang nhất.
- Reference: Because in the last four years we’ve seen all kinds of memes, all kinds of trends get born right on our front page.
- Predicted: Because in 4 years we’ve got to <unk> all the <unk> to <unk> all the <unk>.
- Google: Because in the last 4 years, we observed all the members. All trends to give birth to the front page.