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Removing Language Barriers with AI Machine Translation

Increasing confidence in deciding to publish or edit machine translation content

Background

When using Machine Translation (MT) systems to publish content to international markets, human oversight and post-editing is required. The company needs to review the quality and accuracy of the output of MT. Multiple types of MT systems are available, offering varied degrees of speed, customisation and reliability. The performance of a particular MT approach is dependent on the data context and goals for product positioning and reach.

Solution

ADAPT's solutions in Neural Quality Estimation (NQE) and Neural Automatic Post-Editing (NPE) enables content owners to choose the best technologies available for MT content publication and editing. These solutions are compatible with business demands for cost and resource efficiency.

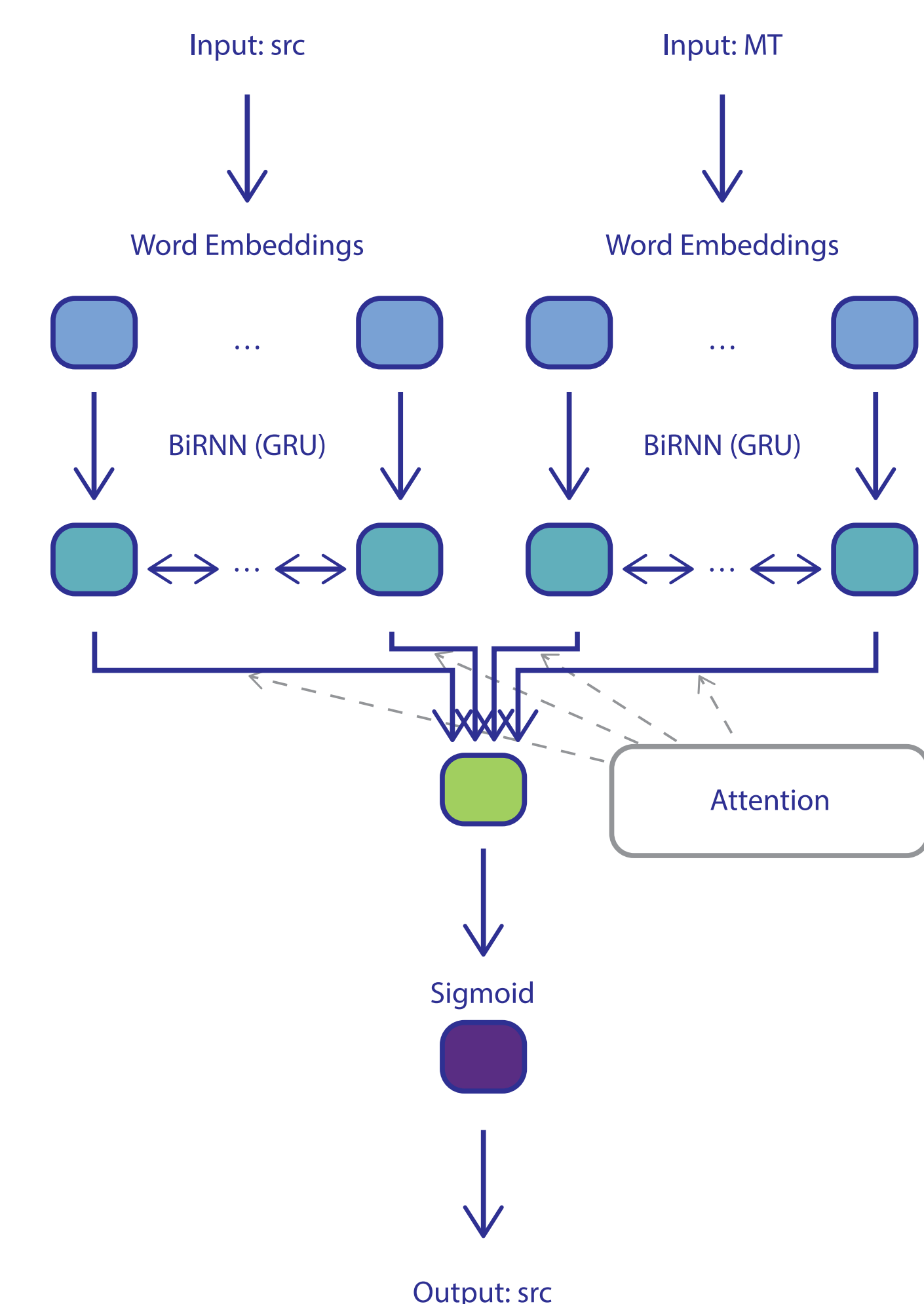
Inputs: MT post-edited data for training (different languages, different documents, content, etc.) and new MT content for testing.

ADAPT Technology: Open-source Neural Quality Estimation (NQE) and Neural Automatic Post-Editing (NPE) systems.

Outputs: MT outputs with reduced need for post-editing. Gives content owners metrics identifying the publishability of content and highlights where editing requirements are needed.

Challenge

Confidently evaluate a range of different MT technologies comparing translation accuracy and quality estimation to the computational complexity of the approach.



Results and Benefits

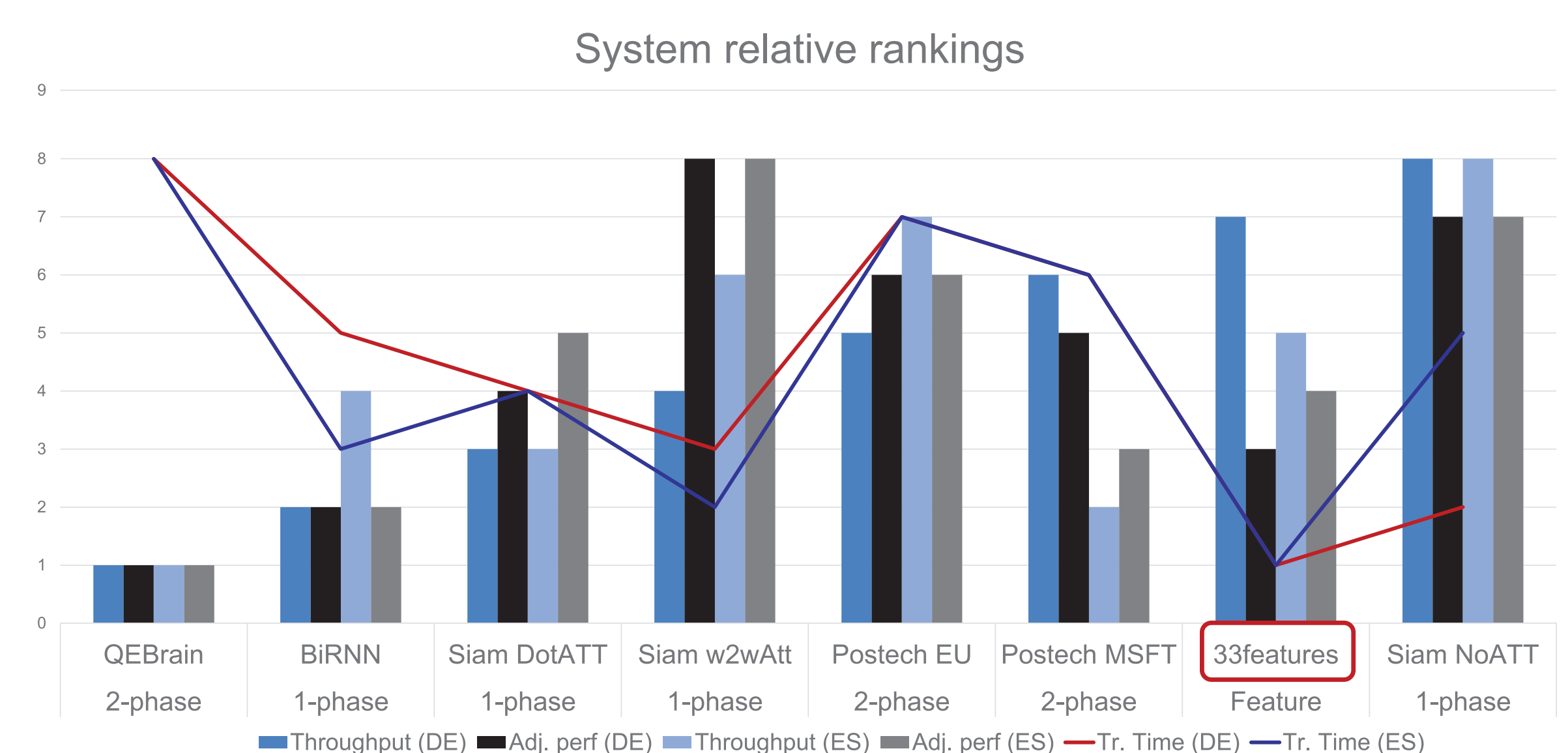
- Neural methods can be used not just to translate but also to control the quality of translation
- This project established that neural estimation of MT quality is ready to be deployed in corporate environments, it achieves significant improvements over current methods, and cost-efficient solutions are feasible.

Industry Benefit

- Control the risk of publishing MT content
- Control the cost of editing MT content
- Identify and select higher quality MT content
- Increased knowledge over types of content and their adaptability to MT
- Develop cost-effective processes to deploy NMT
- Enhance use, reuse and creation of MT content

Use Cases

- Internationalisation and localisation of physical and digital products and services
- Real-time translation
- International customer service



Dr Félix do Carmo, Dr Dimitar Shterionov, Prof Joss Moorkens, Murhaf Hossari, Eric Paquin and Dr Declan Groves
To learn more about innovative ADAPT technologies, contact: collaboration@adaptcentre.ie

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