

Language Weaver Arabic->English MT

Daniel MARCU, Alex FRASER, William WONG, Kevin KNIGHT

Language Weaver, Inc.

4640 Admiralty Way, Suite 1210

Marina del Rey, CA, USA, 90292

{marcu, afraser, wong, knight}@languageweaver.com

Abstract

This presentation is primarily a demonstration of a working statistical machine translation system which translates Modern Standard Arabic into English.

1 Overview

Language Weaver has produced a high-performance statistical Arabic-to-English machine translation system, based on research work conducted at the University of Southern California, Information Sciences Institute (USC/ISI). Getting resource-unlimited laboratory systems to run in real time, on a typical desktop Windows machine, is among Language Weaver's contributions. The system is designed to provide broad general coverage of Arabic news, and is currently used at various sites within the U.S. Government.

The Arabic->English translation system to be demonstrated has been prepared in versions that require 1 or 2 GB of RAM, and run on a 1.5GHz or faster processor and translates at a minimum rate of 500 words per minute. The system includes an option to trade off speed for quality in the translation process allowing users to select the fastest possible gisting-quality output, or the best possible translation quality for each sentence.

2 Demonstration

The translation system will be demonstrated on current news, and possibly other postings from Internet, or other files:

The screenshot shows the MT System - Language Weaver, Inc. interface. The main window displays a news article in Arabic, with the headline "4 قتلى في عملية انتحارية عند معبر ايريز" (4 killed in a suicide operation at Erez crossing). The article text is in Arabic, and there is an image showing the aftermath of the operation. The interface includes a menu on the left with options like "الرئيسية", "أخبار", "الوسط", "Dar al hayat ENGLISH", "معلومات أوت لايت", "Metropolitan", "ملاحظات", and "مواهبون صغار". The bottom status bar shows "words/minute: 1873" and "Complete: 100%".