Invited Speaker BRACIS:
  Lucia Specia (Imperial College, London - UK)

Title:
  Vision-Informed Natural Language Processing
Date/Hour:
  December 3, 2021 – 11:00 (Timezone: GMT – 3)

Abstract:
NLP has come a long away from rules-based approaches with limited scope for generalisability to versatile deep neural architectures that achieve close-to-human performance in a number of applications, especially for sentence-level understanding or generation. Yet, language poses a number of challenges that cannot be solved when processing is limited to sentential information. An interesting direction to further advance NLP is that of making models more context-aware. In this talk, I will introduce research in this direction, focusing on exploring context in another modality: vision. I will cover recent approaches to multimodal machine learning involving language and vision and concentrate on the application of multimodal simultaneous machine translation. Simultaneous machine translation aims to translate a continuous input text stream into another language with the lowest latency and highest quality possible. I will present our current work in this direction, where we study the impact of different multimodal approaches and visual features to make models better at anticipating the missing source context.

Short Bio:
Lucia Specia is Professor of Natural Language Processing at Imperial College London, with part-time appointments at the University of Sheffield and Dublin City University. Her research focuses on various aspects of data-driven approaches to language processing, with a particular interest in multimodal and multilingual context models and work at the intersection of language and vision. Her work has been applied to various tasks such as machine translation, image captioning, text adaptation and quality estimation. She is also interested in making machine translation useful for end-users, where tools like quality estimation and automatic post-editing play a big role. She is the recipient of the MultiMT ERC Starting Grant on Multimodal Machine Translation (2016-2021) and is also currently involved in research projects on in-browser machine translation and quality estimation, as well as multilingual referential grounding. In the past she worked as Senior Lecturer at the University of Wolverhampton (2010-2011), and research engineer at the Xerox Research Centre, France (2008-2009, now Naver Labs). She received a PhD in Computer Science from the University of São Paulo, Brazil, in 2008.