# H*i*LT Lab

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**H**uman **L**anguage **T**echnologies

## Comprehension SEEDING Project

The Comprehension SEEDING project facilitates more effective classroom engagement and deeper student learning by providing a Human Language Technologies (HLT)-enabled web application that teachers can use to evaluate student knowledge in real time.

Students submit natual language **S**elf-**E**xplanations in response to instructors' open-ended questions via mobile devices.

HLT clusters semantically similar responses in real-time and provides the instructor with the most representative response from each cluster to facilitate **E**nhanced **D**iscussion.

HLT also enables automated **IN**quiry **G**eneration as the final **SEEDING** component.
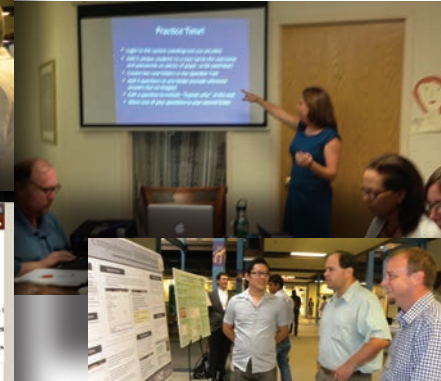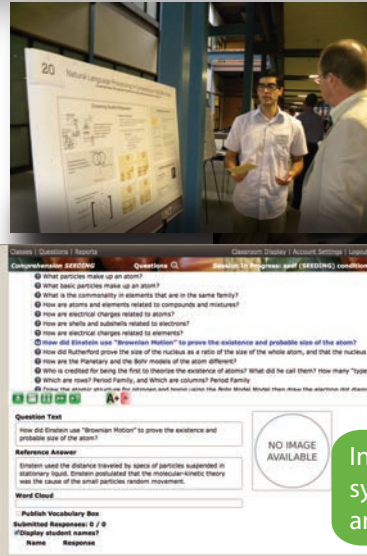


In addition to developing the SEEDING system, this project involves training and supporting over 1700 users.

## Companionbots Project

The Companionbots project is focused on developing a new class of spoken dialogue-based, emotive robot companions to facilitate in-home therapeutic healthcare for elderly patients suffering from depression.

Its primary research focuses are on dialogue technologies, question & answer generation, and physical & mental health monitoring.

The project features multimodal input and output, currently making use of tools such as Kinect™ and Skype™. The Companionbots will utilize critical context dependencies, user models, and interaction history.

Future work on the Companionbots project will include massive-scale data mining over the information collected.
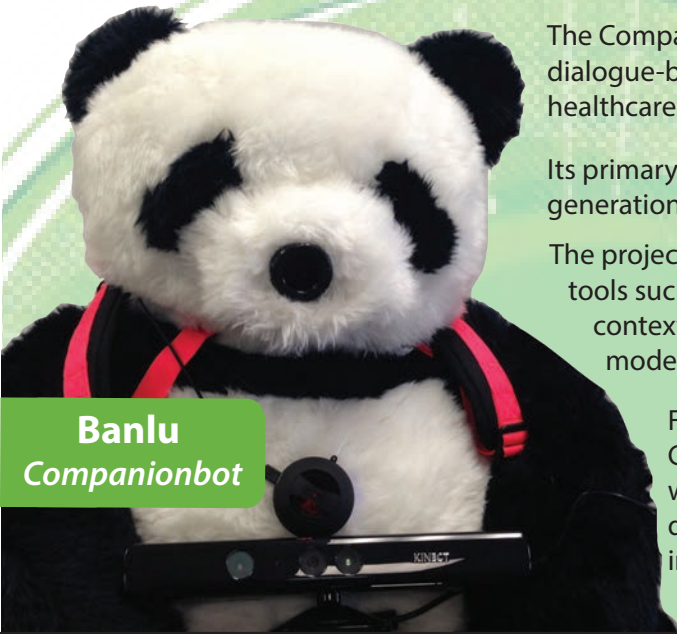
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**Looking for outstanding Ph.D. applicants interested in Machine Intelligence and Human Language Technologies. Contact Rodney.Nielsen@unt.edu**

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