Introducing Learned Lectures
Providing listening material for science and engineering majors

The Problem

While designing an ESP curriculum for materials science students, the amount of freely available listening material that met criteria set by the authors (authentic, representative, content-specific, appropriate length, and at the appropriate level) was found to be extremely limited, compared to the more readily available and researched area of authentic written material.

Possible Solutions

In addressing the listening material needs for the ESP materials science course, the following three established options were considered:

- **Established EFL listening resources** like Randall's ESL Cyber Listening Lab (www.esl-lab.com) or elllo (www.elllo.org).
- **Established presentation resources** like Three Minute Thesis (www.threeminutethesis.org) or Ted Talks (www.ted.com/talks).
- **Established content-specific resources** like MIT Open Courseware (www.ocw.mit.edu/index.htm) or Apple's iTunes U.

They were then measured against the criteria mentioned above:

- **Authentic** - Linguistically authentic
- **Representative** - Contextually authentic
- **Content Specific** - Science and engineering content
- **Length Appropriate** - 10 to 15 minutes of extended listening
- **Level Appropriate** - Language and content comprehensible

So, how do these resources fare in regard to these criteria.

	Authentic	Representative	Content Specific	Length Appropriate	Level Appropriate
EFL	X	X	X	X	O
Presentation	O	XO	O	O	X
Content	O	O	O	X	X

In the above table, 'X' represents absent or predominately absent from possible content in the established resource area. Conversely, 'O' represents present or predominately present. In instances where certain criteria might fall more on a greater range of availability, 'XO' is used. It should be noted that the above table is meant as a general representation of the possible resources listed in each category (EFL, Presentation, or Content).

Our Proposed Solution

Posted on : 23-Jun-2014
Posted by : Rod
Category : Science, Engineering
Views : 98
Ratings : 0

An online self-access database of lectures in English called Learned Lectures: science & engineering lectures for English language learners.

- Relevant, content specific listening materials, to assist science and engineering in developing and improving their listening skills.

To that effect, this ESP listening resource will address the five criteria identified above in the following ways:

Authentic

- We are looking more at content and a less at 'perfect' English.
  * *Presentations given by native and non-native speakers of English.*
- Presentations are not overly polished.
  * *Contain features of spoken English (e.g. redundancy and false starts).*

Representative

- Lectures given by faculty, and graduate or PhD students.
  * *Presenters know their audience are fellow engineers/scientists and do not overly grade their vocabulary. Furthermore, most presentations are structured like academic presentations.*

Content Specific

- Lectures can be on current research or research conducted in the past, an introduction to a fundamental concept from engineering or science, or something that the lecturer finds interesting (e.g. perhaps a comparison of damage in the Tohoku and Hanshin earthquakes).
  * *Lectures are searchable by key words and separated by field for ease of access.*
  * *The intellectual property of the lecture remains with the lecturer, whereas the product of the lecture (video, audio, transcript, instructional materials, etc.) remains with this project and is available, through a Creative Commons license, to anyone who wishes to use it.*

Length Appropriate

- Lectures are roughly 10 to 15 minutes.
  * *Although not representative of a full classroom/conference lecture, presentations present an adequate extended listening opportunity.*

Level Appropriate

- Provide vocabulary profile to help students choose level-appropriate texts.
  * *Each presentation is transcribed and contains captions to aid comprehension.*

The Process

The process really starts with someone offering to record a lecture.

- Next, we arrange a convenient time to video the lecture.
- Next, we transcribe the lecture, prepare subtitle files, and do any necessary editing on the lecture.
- Next, a lecture vocabulary profile is created using LexTutor's VocabProfiler tool (www.lextutor.ca).
 * *We are grateful to receive permission to use their tools.*

- The vocabulary profile is then appended to the end of the transcript.
- Finally, we upload everything to YouTube and to the Learned Lecture Series website.

So far, so...

As with any endeavor, some things go as expected, some things go awry, and some things come out of left field.

...good

Posted on : 10-Jul-2014
Posted by : Rod
Category : Engineering
Views : 45
Ratings : 3

- To date, four people have contributed to the project, and another three more are preparing to give a lecture.
- Participants in the project so far have found the experience rewarding and insightful.
- A few faculty members in the Graduate School of Engineering at our institution have decided to use the site as supplemental listening material in the upcoming term.
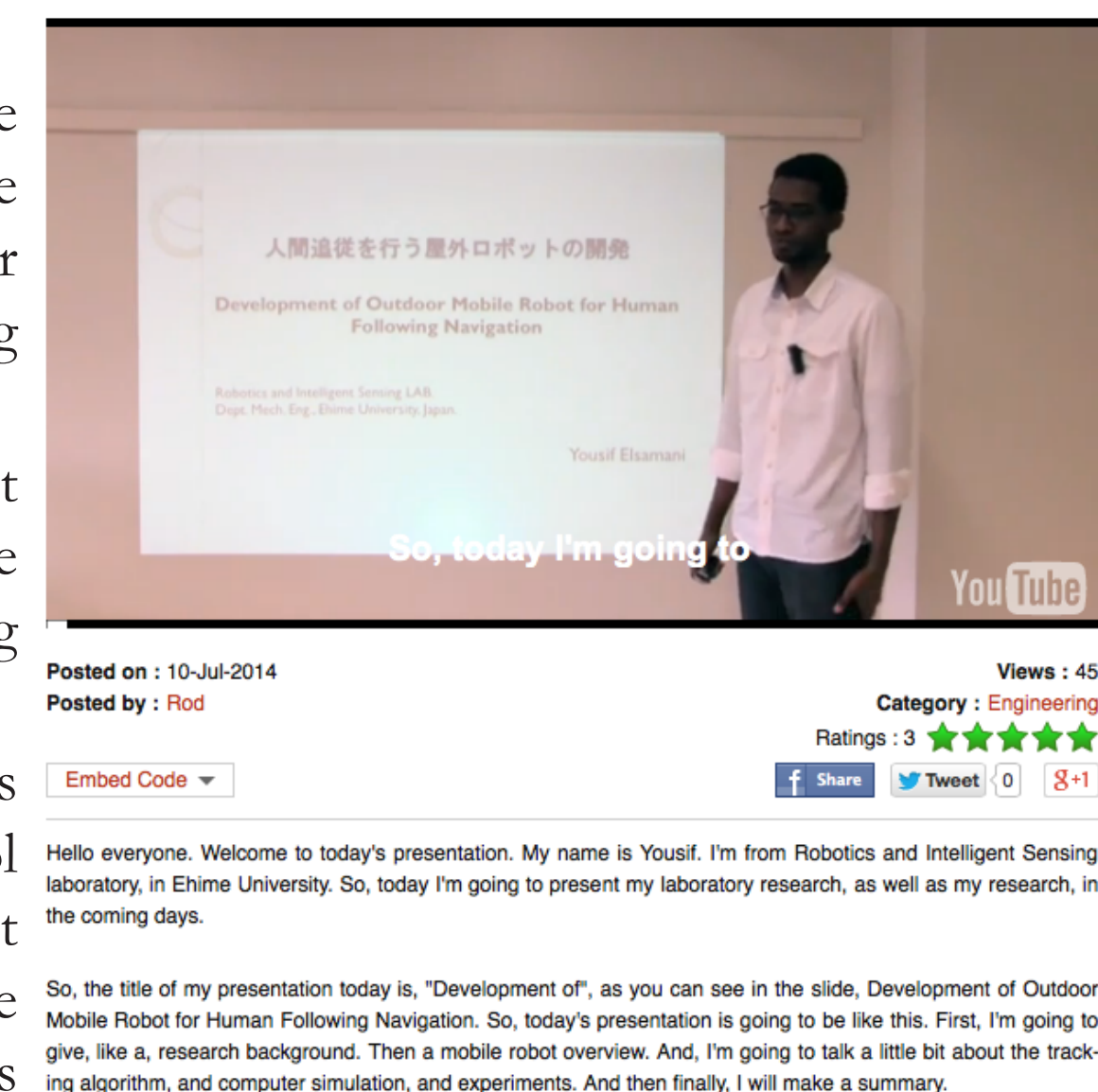
...bad

The three main issues we have faced have been:

- Have received positive comments and some support from faculty and graduate/PhD students inside and outside our institution; however, the number of people that have actually contributed to the project is small. *Maybe we need an ice bucket challenge.*
- Identifying and becoming proficient at using the hardware and software tools necessary to create, edit, and distribute the lectures.
- Keeping the project open and available to anyone to use has meant we have no internal funding for the project from our institution.

Looking Ahead

We would like to have a database of 25 to 40 lectures by the end of the 2014 academic year. We are also looking to collect data from participants in the aforementioned upcoming course where the Learned Lecture Series will be used.

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