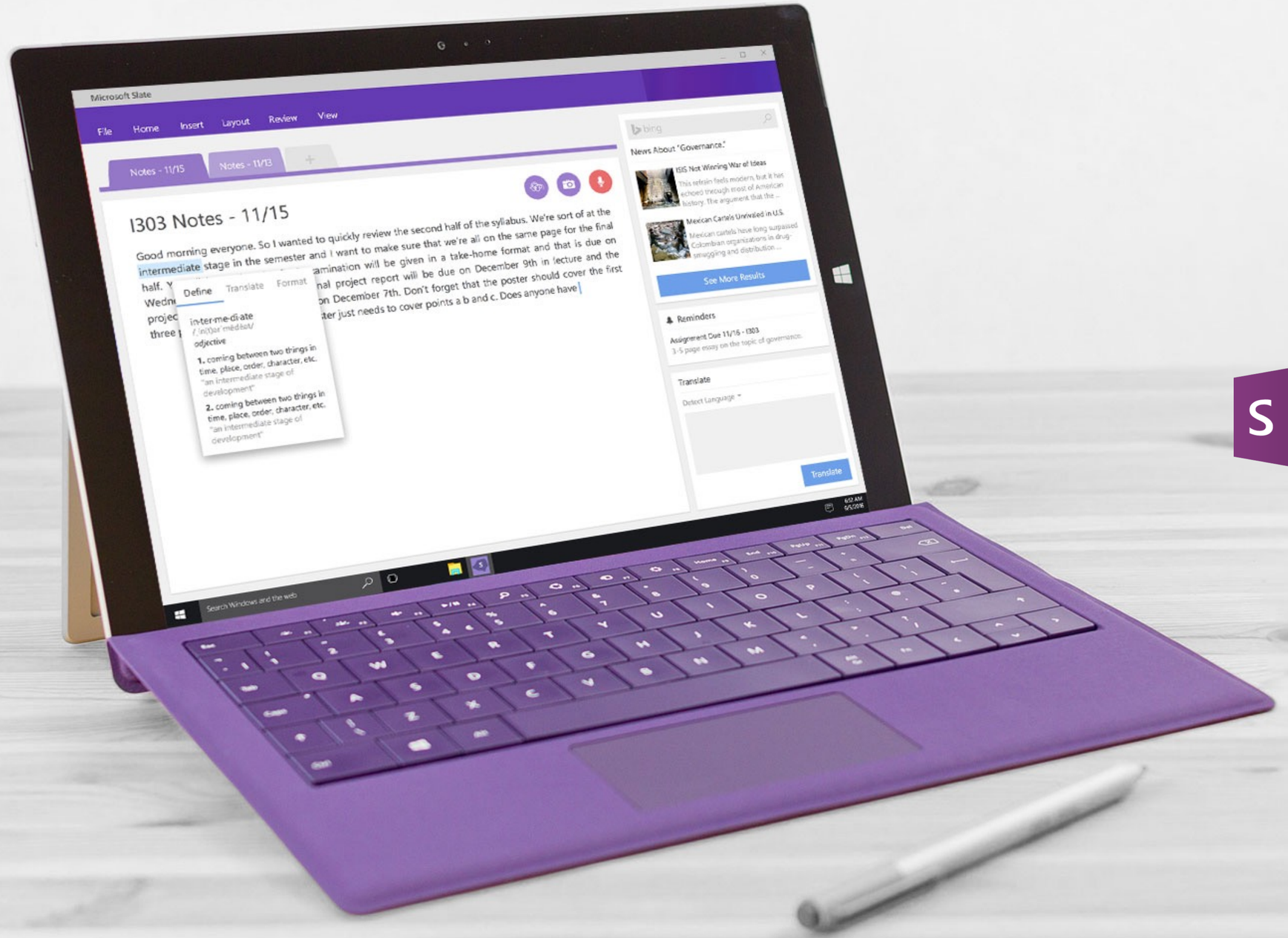

Microsoft

Slate

Team 8
Derek Parker
Karthik Rao
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The Goal

Microsoft

To design a digital assistant for international students
who are studying in colleges and graduate schools
across the United States.

From Our Research

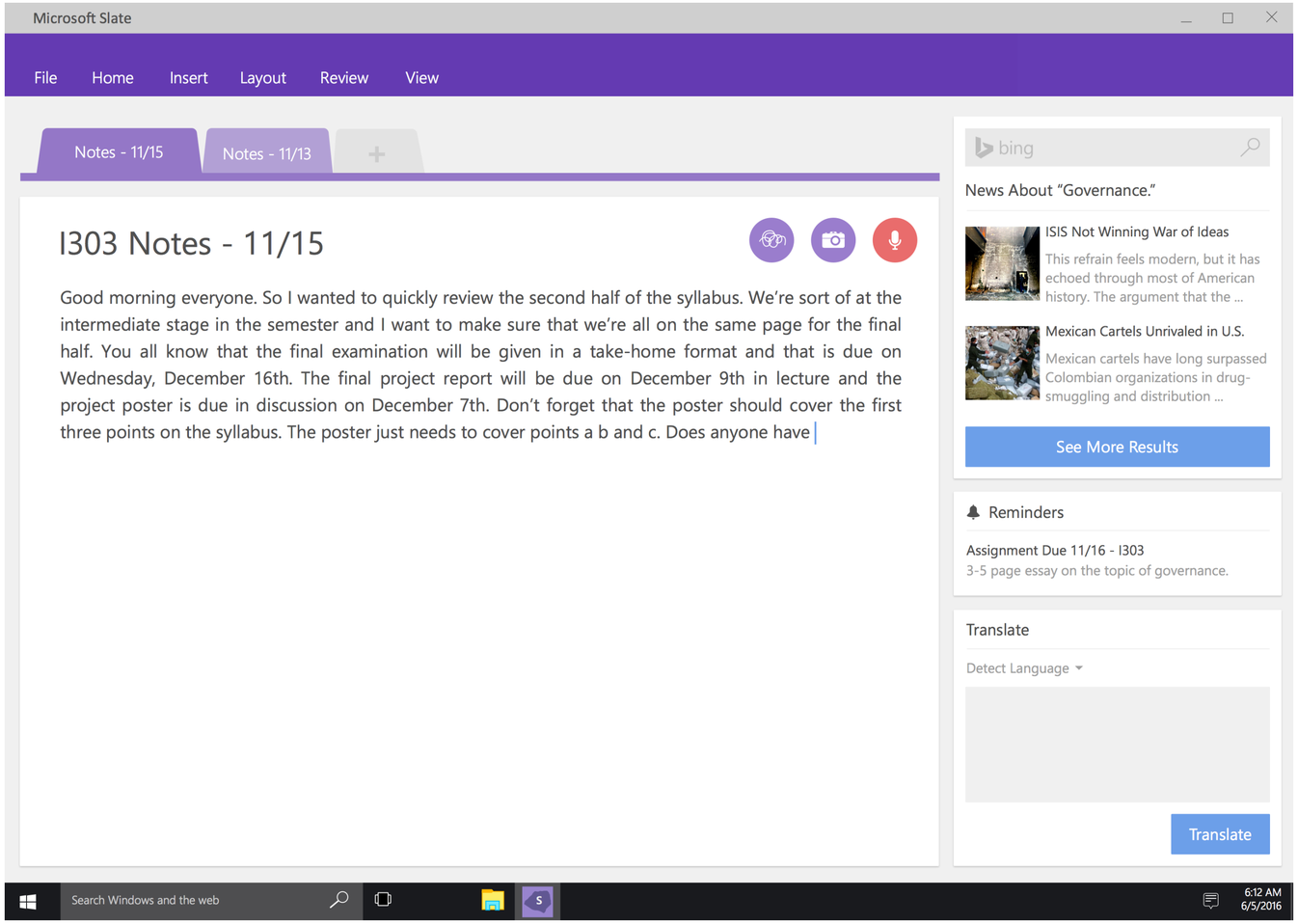
Microsoft

We applied qualitative and quantitative research methods to better understand our target user group and arrived at the following insights.

- Due to language barriers, some international students struggle to keep up with fast-paced lectures.
- They have to work harder to produce the same comprehension as domestic students.
- Lack of fluency in English makes them hesitant to participate in class discussions.
- A lot of American culture references are lost on them.
- Critical thinking has been declining and we think that technology could be inhibiting that by not making people think for themselves.

Hello, Microsoft Slate!

Microsoft



Your in-class digital assistant.

Real-time transcripts of every lecture.

Slate listens to the lecture and uses Bing's translation capabilities to create a transcript in real-time so you can read what is being said at your own pace.

Topical, contextual information.

Want more information about the topic being discussed? Slate uses Bing to bring in news articles and other relevant resources automatically.

Convenient translations.

Slate allows you to quickly translate words and phrases from English to your language and vice versa, so you are always in the loop.

Capture, type or scribble.

Use Slate's multiple input modes to capture class notes the way you like.

Slate In Action

Karima recently moved to the US from Malaysia to pursue a Masters degree.

She's struggling to get good grades or fit in with her classmates because her English isn't very good. Just the thought of walking into class makes her feel nervous. Will she be able to follow today's lecture?

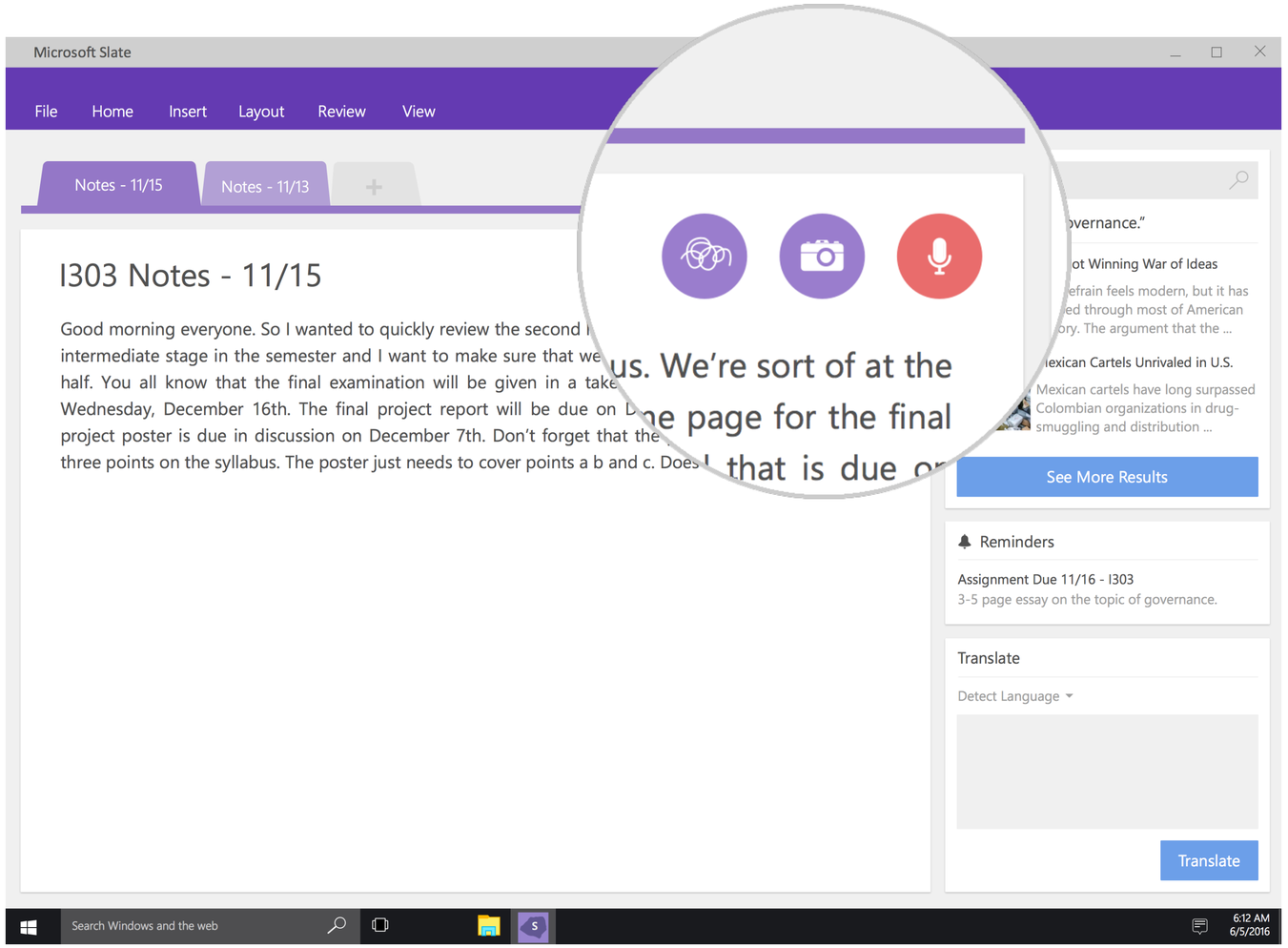
Slate In Action

She opens her Surface tablet and fires up Slate.

Karina is greeted with a familiar interface. When the lecture begins, she clicks on the microphone icon so Slate can listen in on the lecture.

Real-time Transcripts

Microsoft

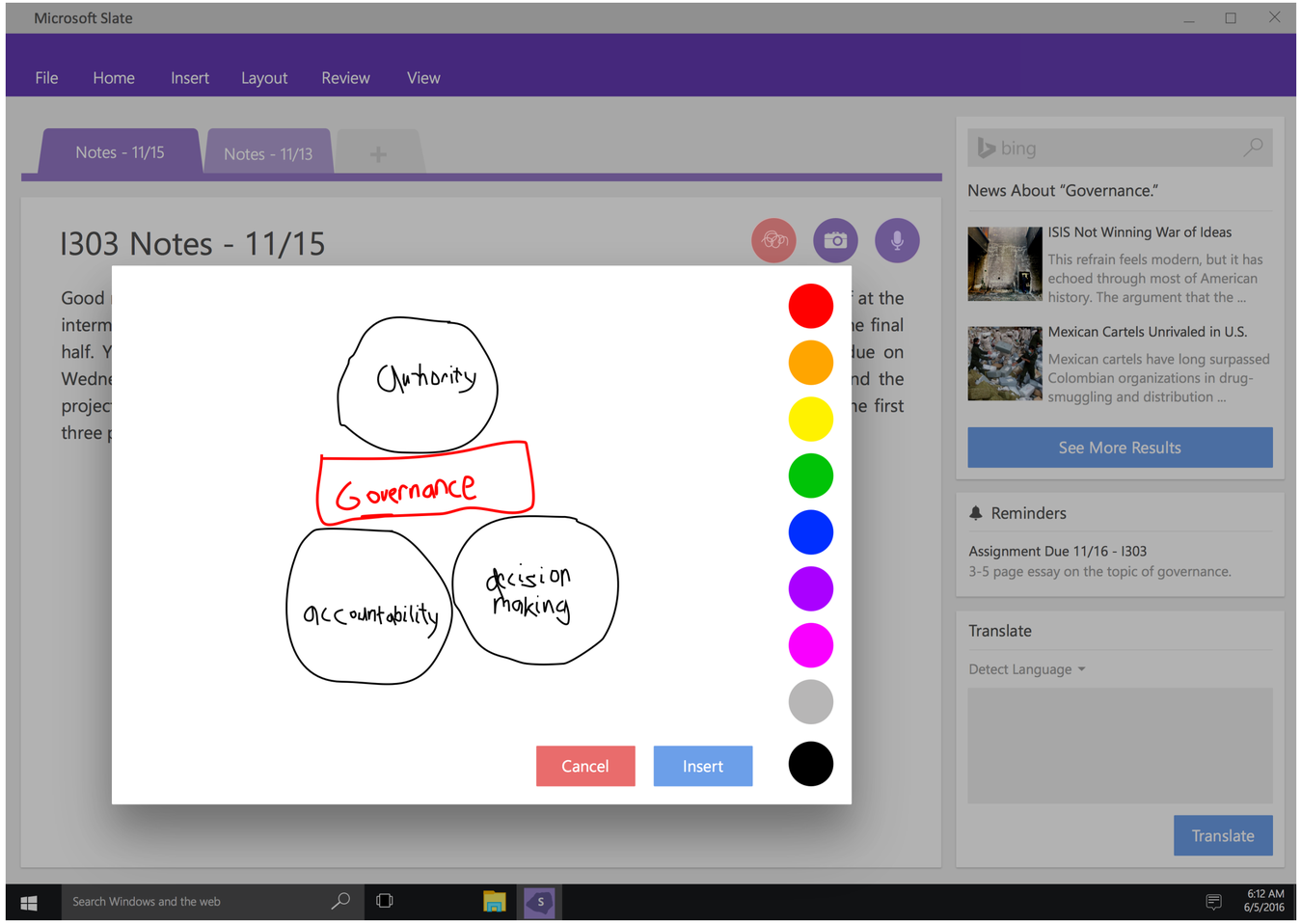


See what you hear.

Slate creates a transcript of the lecture as it happens. This allows Karima to read what is being said at her own pace so she fully understands the lecture. The transcript also doubles up as her notes for the class which can review anytime.

Slate also allows her to format the text into bullet points or highlight important sentences. She can also type her own notes, if she prefers. Tapping on the microphone icon pauses the transcript.

Multiple Input Modes

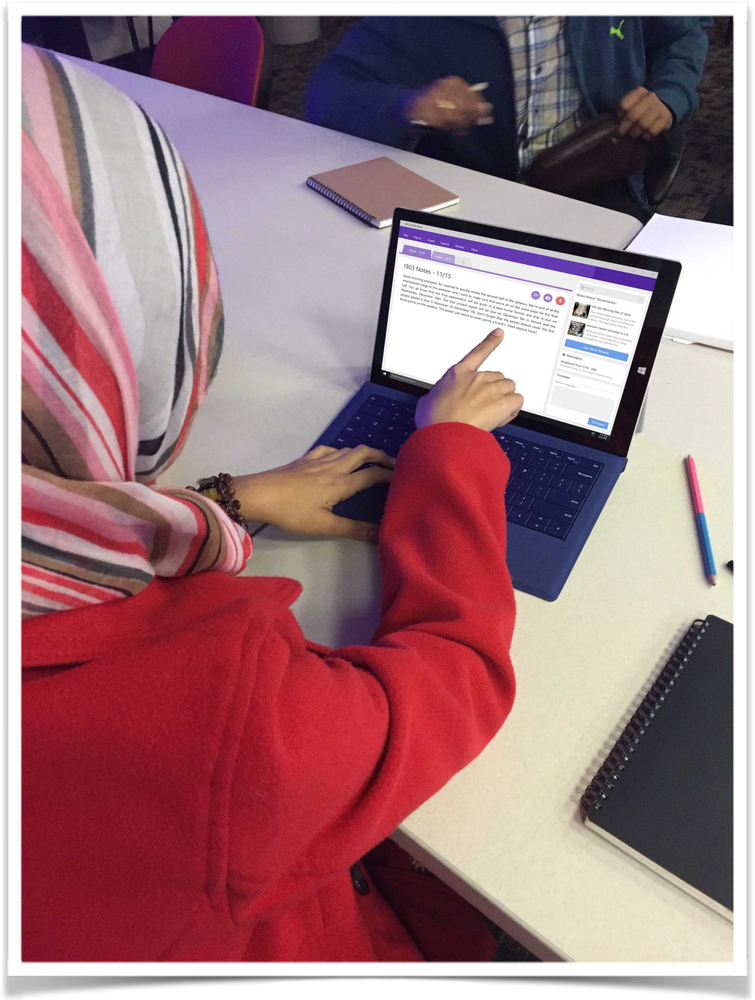


Capture. Type. Scribble.

In addition to text notes, Slate allows Karima to scribble something into the document. Or, she can capture a picture which can also be inserted into the document.

Slate continues to update the transcript in the background while she uses the other input methods.

Slate In Action

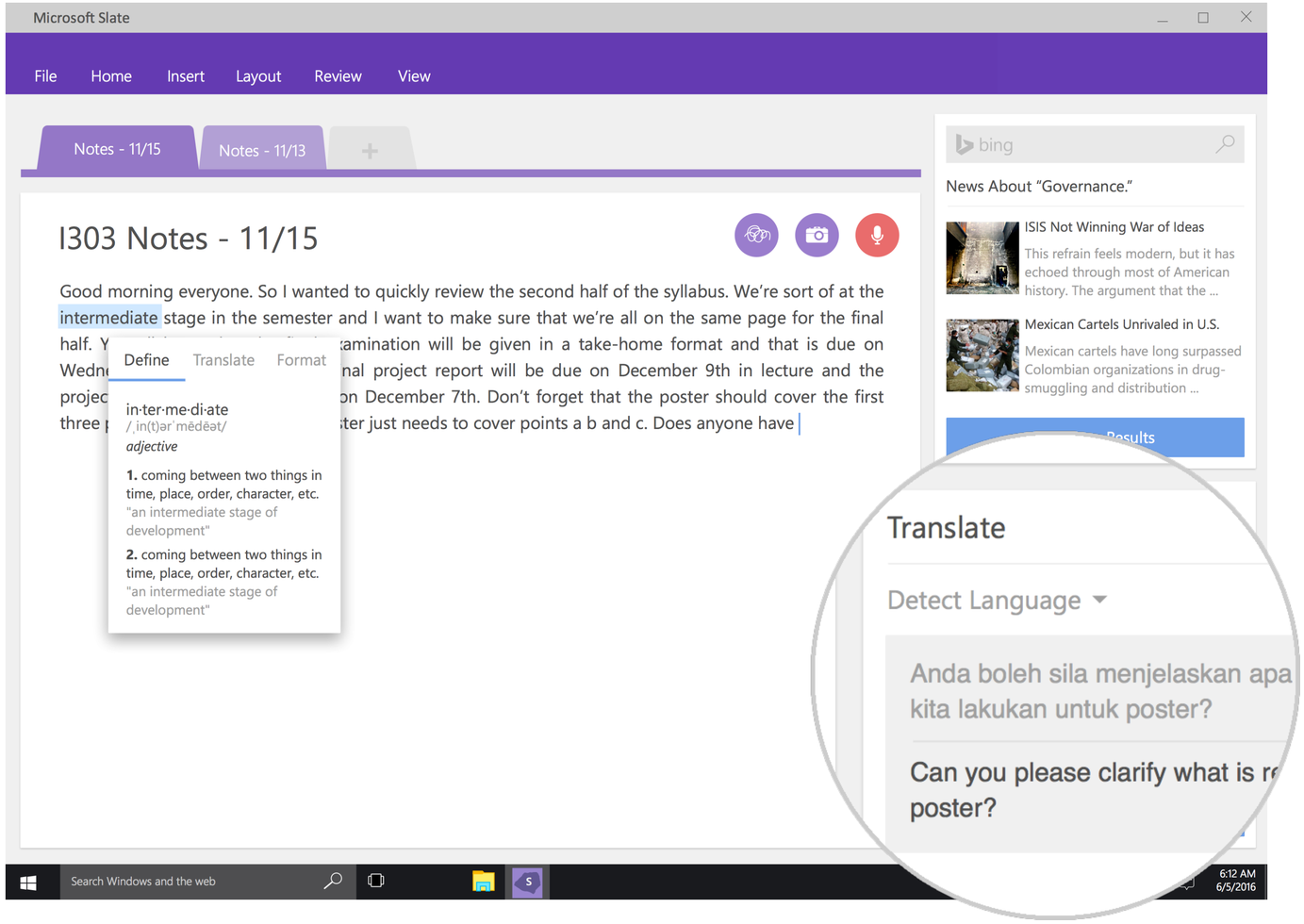


During the lecture, the instructor uses a word Karima isn’t familiar with yet.

She selects the word and Slate pulls up the definition for the word and also translates the word to Malay.

Definitions & Translations

Microsoft



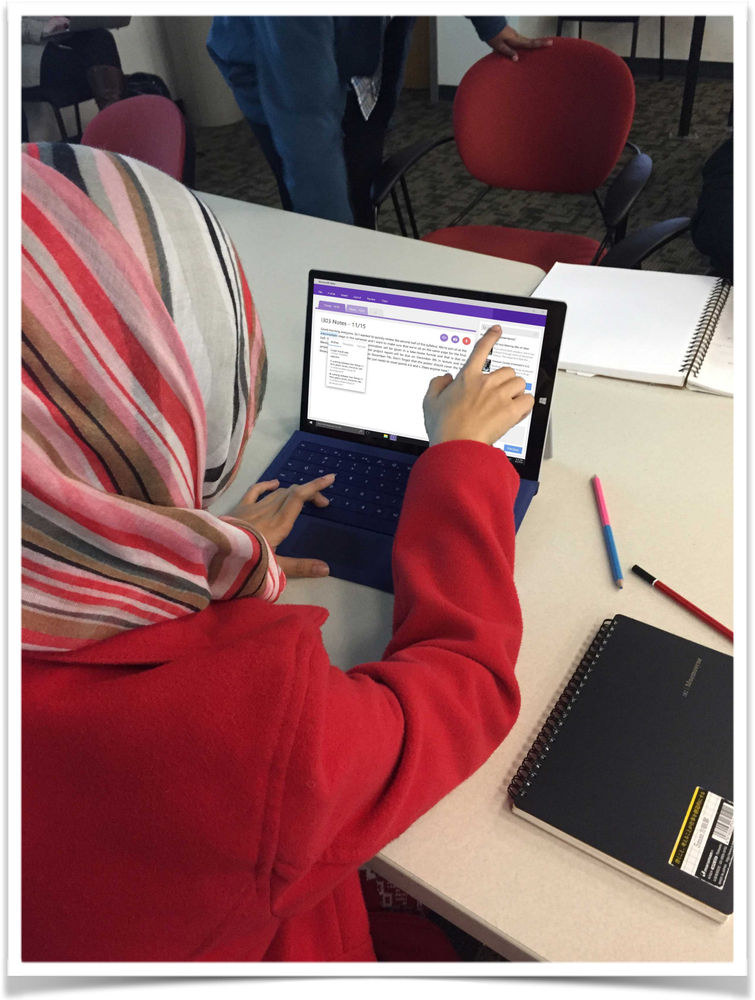
Keeps you in the loop.

Karima can look up definitions and translations to new words just by selecting the word.

If she has a question but is not sure how to phrase it in English, she can use the translator in the sidebar to type the question in Malay and immediately see its English translation.

This helps Karima confidently participate in class discussions and be more engaged.

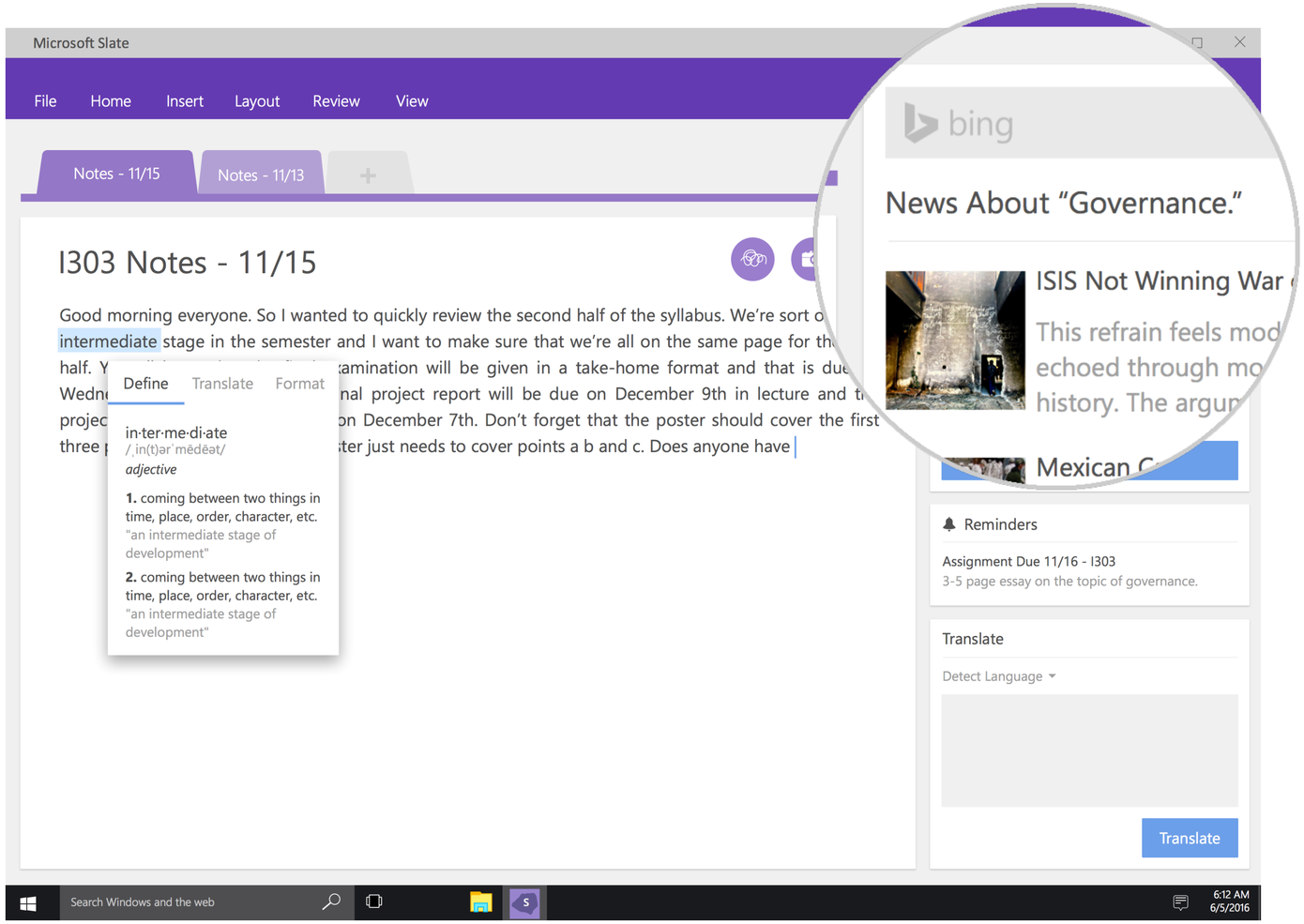
Slate In Action



Karima would like to know more about the topic of “Governance”.

Slate uses Bing to retrieve the latest news articles and other resources in the sidebar.

Contextual Information

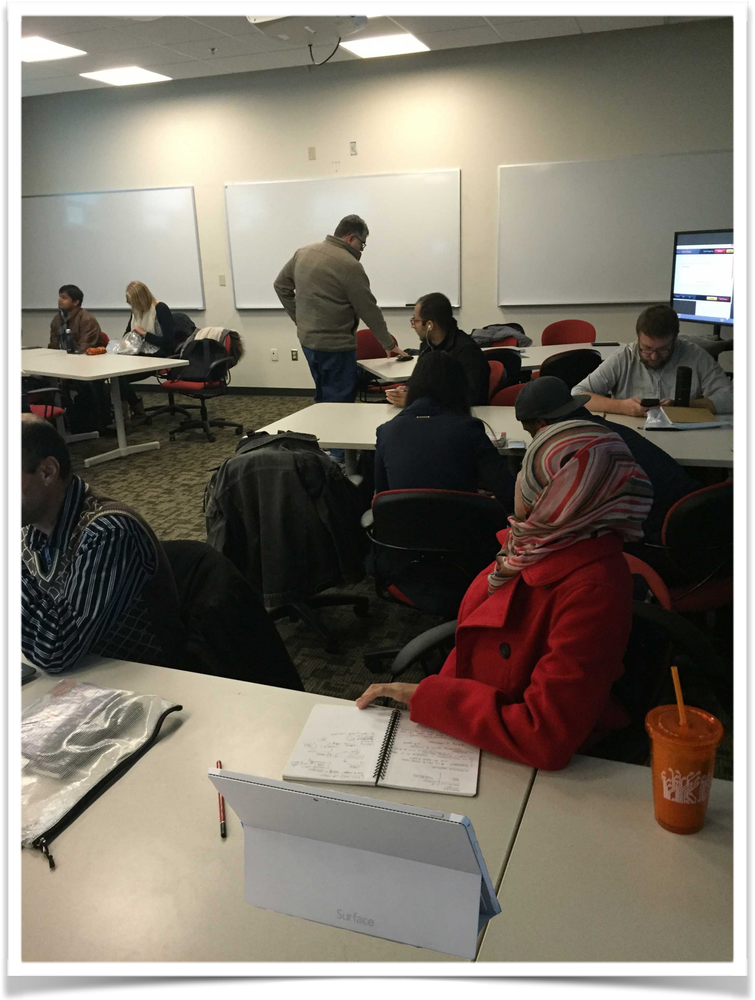


Keeps you updated.

Slate listens to keywords during a lecture and pro-actively pulls up recent news articles or other resources from the web using Bing's powerful search capabilities.

Karima can now read more about these topics and stay updated. She can also search Bing without having to leave Slate.

Slate In Action

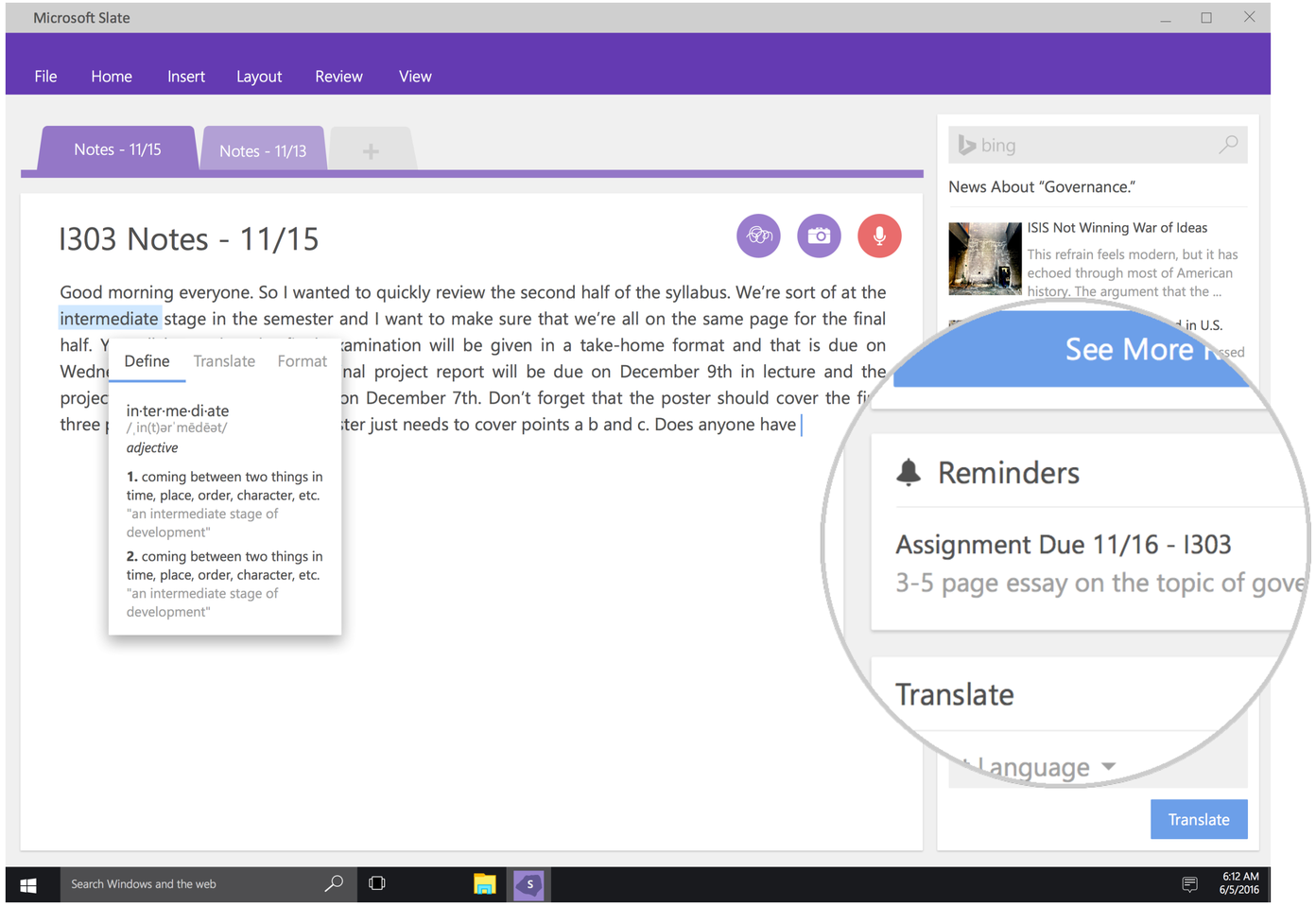


Karima was distracted when the instructor mentioned the due date for an assignment.

Not to worry! Slate automatically creates a reminder for Karima.

Automatic Reminders

Microsoft



Never miss a deadline.

Slate automatically creates reminders for events such as assignment deadlines and exams. These events are also synced with Karima's Exchange calendar, ensuring she never misses a deadline.

Microsoft

Slate

Encourage. Empower. Engage.

Areas Of Focus

While designing Microsoft Slate, we focussed on the following areas:

Individual vs Togetherness

Our design gives every individual student the ability to not only fully understand class lectures and materials but to go beyond and learn more. By introducing the ability to transcribe lectures, look up definitions, and translate phrases in one tool, we've given international students a convenient way to learn in the classroom.

Microsoft slate gives students the time necessary to process the information on their own in order to help them become more engaged with other students. This enables them to spend time outside of the classroom on more in depth learning and or socializing and learning with other classmates. The individual attention in the classroom leaves the student confident and empowered to continue learning and sharing knowledge with others.

Areas Of Focus

Microsoft

While designing Microsoft Slate, we focussed on the following areas:

Trust

Once students start using Microsoft Slate they will see the difference in their learning capabilities in the classroom. This built trust will enable them to stop worrying about language and cultural barriers and start focusing their attention on other areas of their education.

Risk

Slate is intended to help students engage in the classroom and assist in learning a new culture and language. One risk we do foresee is that international students become too dependent on their tablet in the classroom.

Areas Of Focus

Microsoft

While designing Microsoft Slate, we focussed on the following areas:

Devices

Our survey indicated that 92% of our participants would prefer to only use their personal devices in class. Keeping this in mind, we designed Microsoft Slate to be an application that can run on any Windows device.

We believe that a successful digital assistant simply supplements the existing educational process. Students currently use devices such as tablets and laptops in the classroom and the Microsoft Slate is looking to make better use of those technologies.

Interactions

The key interactions include providing context to the notes, providing a hand-writing feature, and transcribing the professor’s lecture. The transcript of the lecture allows the freedom for the student to focus on the class instead of typing/writing down the notes manually.

Appendix

Research Methods

Microsoft

We applied the following qualitative and quantitative research methods to better understand our target user group:

- **Interviews:** We conducted fives interviews via telephone: one professor/administrator, two instructors and three students (including two international students). We followed a semi-structured format for the interview, asking several “core” questions and letting the answers dictate the questions from there.

- **Focus Group:** We conducted a focus group with approximately 20 undergraduate students. We spoke with them about the different types of technologies that they have used in high school and college and discussed the pros and cons of each.

- **Survey:** We sent out a survey to undergraduate students in a lecture based class here at IU, graduate students and recent graduates. We wanted to get a broad sense of how college students learn best, how they like to work on group projects, and which technologies they use and like or dislike.

- **Literature Review:** We read articles to learn more about how technology is used in education. We gained many insights into the implications that technology has for students and teachers and how they are dealing with it and adapting to it individually and together.

Citations

Microsoft

- **Cover image:** http://cdn2.pcadvisor.co.uk/cmsdata/features/3265725/MS_Surface_Pro_3_MG_0897.jpg
- **Special thanks to Karima Nurahmi Yulia**