A world map with a light blue background and white landmasses. Two black arrows originate from a point in East Asia (China) and point towards Norway in Northern Europe. The text is overlaid on the map.

«Technology and Science»

Planning to use robotics for educational purposes

St. Olav High School, Norway

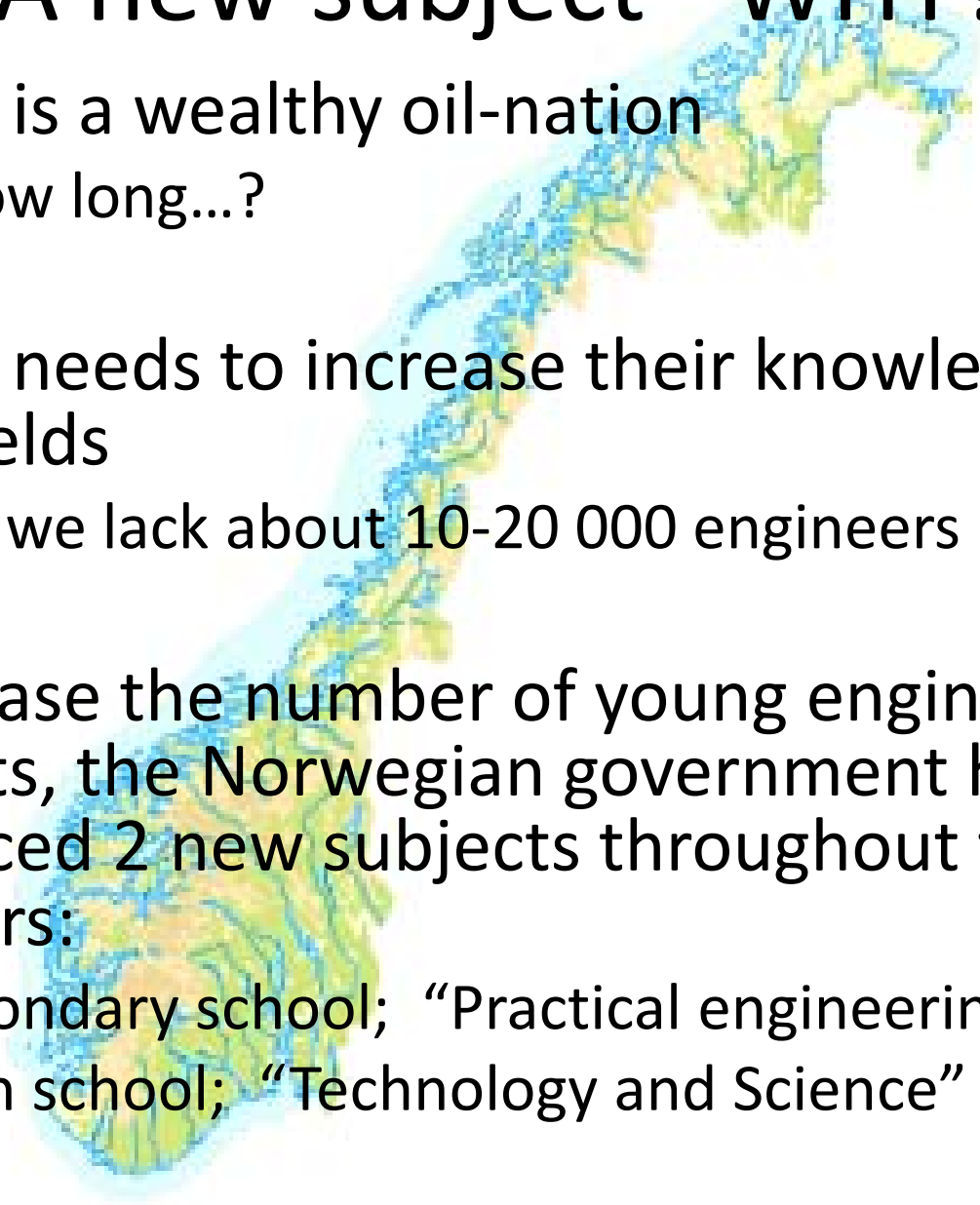
by Mrs. Nina Meyer

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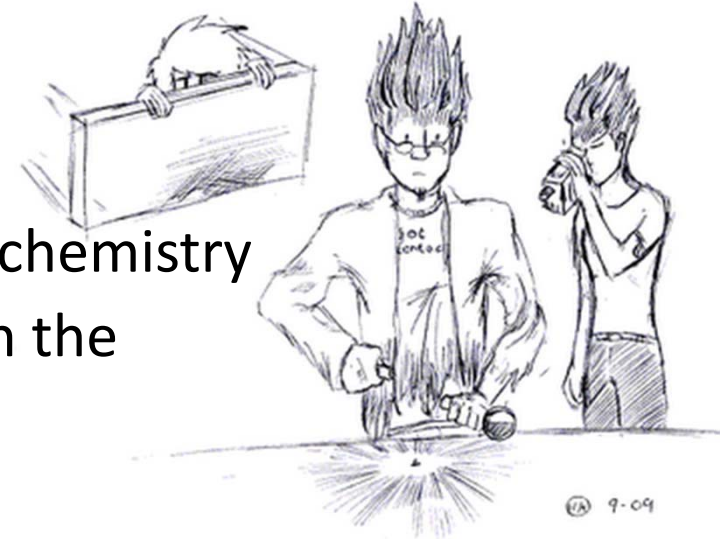
A new subject –WHY?

- Norway is a wealthy oil-nation
 - For how long...?
- Norway needs to increase their knowledge in other fields
 - Today we lack about 10-20 000 engineers
- To increase the number of young engineers and scientists, the Norwegian government has introduced 2 new subjects throughout the past two years:
 - In secondary school; “Practical engineering”
 - In high school; “Technology and Science”



“Technology and Science”

- Is a natural science course
 - Comparable to biology, physics and chemistry
 - Supposed to get a central position in the future
- Course; 5 hrs./week for a 2 year period (12th and 13th)
- The subject`s main areas and aims are:
 1. Design and product development
 2. The young engineer
 3. The young scientist
 4. Technology, science and society



How to reach the subject's aims?

- We plan to use LEGO®!
- LEGO® is a Danish product designed in the twenties
 - Lego means «play well»
 - LEGO®'s ability to be innovative and develop new products has led to their success
- Every child in Norway - perhaps worldwide - knows LEGO®
 - We want to use familiar material to design new products



LEGO® Mindstorm EV3

video

- «First Lego League» for younger pupils up to 16 years old
 - A team of pupils solve a given problem using LEGO®-robotics
 - Regional, national and international competition
- To use LEGO® Mindstorm EV3 are one of the possibilities we consider for our students in high school
 - However: we need to give them an assignment that's appropriate for older students and can help them reach the the subject's aims

This year

VIDEO

- Introducing the subject
 - Offering a 3 hrs./week course
- LEGO[®]-project
 - 3 parts
 1. Build a LEGO-robot with instructions, “The Snapper”
 2. Create a LEGO-robot without instructions
 3. Create LEGO-robots that are able to interact with one another

We are here to learn!

There really isn't anyone else than Japan – *the* technology nation – that could've provided us with better and more up-to-date information on how to use robotics for educational purposes.

We were hoping to get new ideas on how to use robotics for educational purposes through participating at IRH.

AND WE DID!

We don't even know what the fox
says...



Sources

- Pictures 21.10.13:
 - [http://ndla.no/sites/default/files/images/800px-A large blank world map with oceans marked in blue.gif](http://ndla.no/sites/default/files/images/800px-A%20large%20blank%20world%20map%20with%20oceans%20marked%20in%20blue.gif)
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