Why not use SIOS Knowledge Center for educational purposes?

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Third Polar Data Forum, Helsinki, November 2019
Russian cruiser, symbol of the October Revolution, https://pl.wikipedia.org

Aurora borealis, Photo by Kajetan Deja

Princess Aurora, https://pl.wikipedia.org
The Arctic

Arctic Boundary as defined by the Arctic Research and Policy Act (ARPA)

All United States and foreign territory north of the Arctic Circle and all United States territory north and west of the boundary formed by the Porcupine, Yukon, and Kuskokwim Rivers; all contiguous seas, including the Arctic Ocean and the Beaufort, Bering and Chukchi Seas; and the Aleutian chain.¹

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¹ The Aleutian chain boundary is demarcated by the ‘Contiguous zone’ limit of 24-nautical miles.
Is the Arctic understood?


<table>
<thead>
<tr>
<th>What do you think is the greatest threat facing the Arctic region today?</th>
<th>Russia</th>
<th>Sweden</th>
<th>Finland</th>
<th>Norway</th>
<th>Denmark</th>
<th>Iceland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global warming, climate change</td>
<td>20%</td>
<td>32%</td>
<td>43%</td>
<td>26%</td>
<td>46%</td>
<td>30%</td>
</tr>
<tr>
<td>Environmental damage/degradation</td>
<td>5%</td>
<td>7%</td>
<td>5%</td>
<td>7%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>Human/outsider interference/intrusions, negative effects on land/North, lack of understanding/ignorance of area, lack of respect for the North</td>
<td>4%</td>
<td>1%</td>
<td>3%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

"I neither know nor think that I know" (Socrates)
Is the Arctic understood?

• According to the 2018 study by Kotynska-Zielinska et al. (in review):
  – Large number of Polish (total of 274) and Lithuanian (80) school students (independent of age and gender) are still confused with their perception of the Arctic issues.
  – Regarding means of knowledge sources: interesting lessons with good materials and Internet are among dominating sources.
“The seventeen Sustainable Development Goals are our shared vision of humanity and a social contract between the world's leaders and the people. They are a to-do list for people and planet, and a blueprint for success.”

- UN Secretary-General Ban Ki-moon
Knowledge

• Knowledge is a true, justified conviction (*Plato*).

• Knowledge is a set of justified information about reality, with skills to use them (*Nowa Encyklopedia Powszechna*).

• Knowledge is a fluid mix of framed experience, values, contextual information, and expert insights (*Davenport, Prusak*)

K. Goczyła “Ontologie w systemach informatycznych” 2011
Knowledge

• Knowledge can be described as follows:

\[ k := \langle I, C, E \rangle \]

where: \( k \) - knowledge, \( I \) – information, \( C \) – context, \( E \) – experience.

• SIOS provides users with all these three elements, thus it provides knowledge.

• Knowledge is a common value!
NOAA spreading knowledge to kids

Just for Kids

Explore NOAA Activities and Resources for Children
By sharing the world’s ocean knowledge, we can protect the planet on which we live.

Here you will find the necessary Ocean Literacy resources to develop knowledge, skills, values and behaviors needed to create an ocean literate community. A collection of education and information resources, projects, tools, methods, reports, programs and material regarding global ocean knowledge, useful to understand ocean processes, functions and issues.
Knowledge based good practice
Ocean Literacy

An ocean-literate person understands:

- the essential principles and fundamental concepts,
- can communicate about the ocean in a meaningful way,
- is able to make informed and responsible decisions regarding the ocean and its resources.

Source: http://oceanliteracy.wp2.coexploration.org
The services offered include:

- Integration and optimisation of the observing system
- Access to the research infrastructure
- Data management, storing and curating of scientific data, both ground-based and from space
- Utilisation of remote sensing resources
- Coordination of logistical services
- Training and education programmes
- Information and outreach
SIOS Knowledge Center

The SIOS Education and Training program aims to

- provide researchers, technicians and other user communities with the necessary skills to make best use of the SIOS infrastructure,
- give researchers and students the opportunity to improve their Earth System Science knowledge
- SIOS-KC is currently developing a set of training modules that can be offered to target user groups. The first module is focusing on data management as tool for scientists and is offered as additional package to workshops funded by the Svalbard Strategic Grant.
Let’s open SIOS Knowledge Center for all!

• Arctic Literacy?! YES!

• How about educational/promotional programs/projects about the Arctic dedicated to general public and young learners in particular?

• Interactive resources to teach about the most important Arctic issues.
Please contact us to discuss it

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