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Environmental challenges and professional creativity

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Abstract

Environmental challenges and professionalism are related in two ways. On one hand, the environmental challenges to be tackled in the 21st century require outstanding professional creativity. On the other hand, environmental challenges can foster professional creativity: the task of building levees in The Netherlands or to drill tunnels in Switzerland played a key role in shaping the engineering cultures of these small countries, and so did the need to overcome the vast distances – including the Rocky Mountains – in America. In Russia, key environmental challenges relate to the Arctic and Subarctic regions. There is an opportunity and a need to relate the development of professional culture in Russia to the world of the Arctics.

Three relevant groups should be distinguished. First, the environmental specialists. A perfect example is given by the vision of the Bergen Nansen Center: “To serve the society through advancing knowledge on the marine environment and climate system in the spirit of Fridtjof Nansen”. No less important are the professionals addressed by The Arctic Next Wave conference: “seasoned energy veterans and young professionals recently assigned to and/or anticipating responsibility for a project in the Arctic”.

Environmental specialist make up only a tiny fraction of the working population. A somewhat larger fraction of about 10% consists of high-skilled professionals like engineers, doctors, architects etc. Making this second group more aware of environmental challenges and of their role in addressing them will be essential if Russia is to tackle these challenges successfully.

But it would be a big mistake to ignore the majority of the working population in this regard. There are only a few countries where this third group gets a vocational education, mainly the German speaking and Scandinavian ones. Empirical research has shown that these countries draw a great competitive advantage from their vocational education. In Russia, technical and vocational education can develop in a similar direction, and incorporating knowledge about the Arctic in the curriculum can strengthen Russian professional culture.

A key tool to understand and improve the dynamics of professional culture is algorithmic game theory. Currently this theory is used mainly in evolutionary

biology, in computer science and in economics. It is time to use it in empirical and theoretical research about man-environment relations, too.

Reference: Jaeger, C., Choice for China: What Role for Vocational Education in Green Growth? *China & World Economy*, 22, 55-75 (2014)