## Preface

The beginning of the 21st century is a time of many changes in almost all spheres of political, social and economic life. The technological progress, globalization processes and integration create and constantly change the factors of development and influence multidirectional social changes. One of the more sensitive spheres of social life and, at the same time, one remaining in a close symbiosis with the aforementioned changes is indubitably the sphere of education. Education is in fact an essential way of teaching people how to cope with changeability. The more effectively – by means of education – a man adapts to changes, the higher will be their quality of life and the better position of these school subjects/degree courses which effectively support one in these activities. This principle is likewise applicable to the geographic education at all levels of schooling. Consequently, the issue of this volume focuses on the processes that currently, to the greatest extent, affect and at times even determine the contemporary shape of the geographic education.

The present volume incorporates thirteen articles analyzing this issue from different spatial scales: from a local scale up to national and international ones. The articles consider all levels of education and reveal a variety of research perspectives such as research reports, case studies, diagnoses as well as theoretical considerations of a general nature. The common denominator of all presented studies is the authors' scientific attention upon the changes that can be observed in the today geographic education both in Poland and in other countries as well as an attempt to evaluate them in the context of development of geography as science and the subject of education in the process of implementation of the education reform.

Danuta Piróg's article analyzing the impact of major processes currently affecting the higher education and Geography as a field of study opens the first section of the volume. From a macro-perspective, in the article the author considered freeing both the labor market and the educational services market up, an integration with the Bologna Process, demographic changes, evolution of the Polish people's aspirations towards education and professional careers. With regard to geography, she focused upon changes in a broadly perceived perception of the school geography, young people's inspiration towards undertaking these studies and their motivation for choosing Geography among students studying this subject.

Wiktor Osuch discussed the role of teaching competences as a factor determining the condition of the school geography. He characterized those competences that a teacher of Geography should acquire in order to educate students in a modern and effective manner. He emphasized the importance of competences associated with geoinformatics essential in the process of implementation of various types of interdisciplinary projects. He also pointed to the fact that a competent teacher can provide their students with knowledge and skills in the field of geoinformatics, operate

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computer equipment at an intermediate level; a teacher should also be a partner for their students in those activities.

Agnieszka Świętek, Roksana Zarychta and Paweł Struś continue the analysis of the impact of the technological development upon changes in the geographical education. They focused on information and communication technologies (ICT) and analyzed ways of their application in the geographic education. They indicated several models of ICT inclusions at schools. They likewise studied the contents of the core curriculum, which are particularly conducive to use of ICT during geography lessons at both a primary and a secondary school. They also offered a wide range of free tools that can be used in classes with students, which can enhance attractiveness of geography lessons and help students achieve their best learning results.

The evaluation of the effects and, in particular, the importance of a formative assessment in both the effective geographic education and the transformation of the concept of education in the 21st century was presented by Monika Borgiasz. A formative assessment is based on the assumption that both a student and a teacher are to receive feedback on their progress, which allows for more efficient education and a geographic self-education. The article also incorporates students' opinions about a formative assessment.

Demand and supply relations of the educational market emerge as another very important process shaping the geographic education. Remigiusz Pacyna indicates that even such a highly developed country with a well-organized management system like Switzerland is struggling with a deepening shortage of qualified pedagogical staff. This trend results in "multiple subjectivity" of teachers that may have an impact upon the quality of their work and educational performance of students.

The quality of geographic education will determine, in the future, the level of preparation of candidates for a teaching profession. The better a professional and substantive preparation, the more professional and valuable geographic education will be offered to future students. In this area, Katarzyna Janczarska-Bergel focuses upon determining both the level of ecological awareness and the level of mastery of basic ecological knowledge by teachers of natural sciences. She predicts numerous deficiencies and emphasizes the need to supplement them.

An access to current, reliable and professional knowledge likewise emerges as an important factor influencing the geographic education. Mariusz Szubert demonstrates the need to overcome a stereotypical perception of a region and a city in the regional Geography of Poland, defending his thesis by means of in-depth characteristics of the Upper Silesian conurbation and the city of Łódź. He presents structural changes in their economy and changes in the urban landscape that occurred with the development of metropolitan functions. He points out that a competent teacher of Geography functions as a key player in both creating a contemporary image of a region and overcoming stereotypes.

Piotr Dolnicki, pointing to the example of polar areas and, more precisely, a polar station at the example of the Stanisław Siedlecki Polish Polar Station, Hornsund, on Spitsbergen, puts emphasis on significance of education embedded in current and scientific facts. The presented material is a collection of professional pieces of information selected in such a way that it can be used by teachers implementing the current core curriculum, which introduces issues concerning Poland's involvement in the polar research into primary schools.

The second section of the volume presents the processes, problems and challenges that specialists in other countries such as Bulgaria, the Czech Republic, Slovakia, Slovenia and Northern Ireland observe in the context of the geographical education in the 21st century.

Tracey McKay discusses recent trends and considers the implications for Geography and the geographical education in the years ahead in Northern Ireland. She asserts that the geographical tradition remains strong at a primary school. Whereas, geography taught at a secondary school has been passing through a dangerous and tough phase, with a declining number of students choosing to study Geography at GCSE and A-Level. The truth is that both increased subject requirements and options to study have discouraged some students from studying geography. Thus, Geography Departments recognise a high competitiveness in which they have to operate. She also points to the fact that the future of geography requires a strong commitment towards unearthing the subject's enormous potential as well as motivating students.

Maya Vasileva, Kliment Naydenov and Georgi Kotseff underline that understanding, mastering and applying new ideas in Geography schooling is the most proper way to achieve high professionalism in geography education in Bulgaria. Such professionalism implies three prerequisites: a scientifically based (and not only an intuitive one) professional activity, high and sustainable results and a clear positive attitude towards it. Undoubtedly, exploring the foundations of didactics (its theory and methodology) should be a starting point for creative problem solving or the implementation of upcoming geography educational tasks.

Tatjana Resnik Planinc arrived at very similar conclusions regarding the leading processes shaping the geographic education in Slovenia, i.e. the importance of the development of didactic teaching. These considerations are voiced by the author at an example of development of the didactics of Geography at the Department of Geography, Faculty of Arts, the University of Ljubljana from its beginning until today with a special emphasis upon the changes caused by the Bologna Process.

Magdaléna Nemčíková, Zuzana Rampašeková, Hilda Kramáreková and Alena Dubcová focus on pre-service teacher education as one of the factors shaping the current Geography eduaction. They characterize the current state of this education in Nitra in the context of both the subject didactics and pedagogical practice, identifying thus the challenges of their future preparation. In conclusion, they stress that the condition of geography teacher education is worse since geography is not one of the main subjects at schools, it is thus relatively often taught in an unprofessional way (we do not have any statistics concerning this fact). Geography graduates, therefore, often extend their study in order to be able to teach at least one other subject.

Dagmar Popjaková and Petra Karvánková indicate that an important factor influencing the quality of the geographic education in XXI century is the use of modern teaching methods. They present a case study which is an example of using inquiry-based learning. They likewise explain how to make Geography and Biology (natural sciences) more appealing for school learners. The crucial principle of these learning activities is that learners can verify their knowledge, skills and experience acquired at a school in real life.