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Open science: from theory to practices (Ukrainian and Chinese perspectives)

The article is dedicated to the analysis of how the ideas of Open Science find their way to the research practices in higher educational institutions, particularly on the examples of Ukraine and China. It is revealed that the at the moment most researchers do not possess adequate information about the concept of Open Science, its guidelines are almost absent from regulatory documents and strategies for the development of HEIs, and they just start to appear in plans and declarations of the national level. It is shown that for now only the practices of implementing the lower "procedural" aspect of Open Science, in particular the development of open access to data and information, are in the focus of attention at both national and institutional levels, while the support for the values of democracy and academic freedom mostly remains a declaration. Open Science is argued to be not just the promotion of open access and the building of the corresponding infrastructure, but the whole paradigm of openness and democratization of research practices, including their decentralization and the abandonment of the externally imposed orientation on quantitative and formal indicators of the research effectiveness. It is found to be especially difficult to implement the values of academic freedom and democracy declared in normative documents and development strategies into everyday research practice considering the centralized traditions of management peculiar to many countries of the world, including Ukraine and China. Still, some of the practices that are being more or less successfully realized in China and other countries of the Southeast Asian region, which are at approximately the same stage of movement from excessive centralization of the higher education system to its democratization, are argued to be useful as examples for Ukraine.

***Key words**: open science, research practices, democratization of education, values of higher education, higher education in China.*

Introduction

It may seem on the first glance that under the state of war, problems of the development of science and problems of academic research are not that important for society as a whole and for education in particular, and that with the current vicissitudes of life in Ukraine all attention should be rather

drawn to the war activities. However such a position is kind of shortsighted from a philosophical point of view. And not just because science provides quite practical results in the form of technologies, including means for the post-war renovation of the country, – but also due to the fact that science and academic activity serve society by helping to create a whole paradigm of democratic culture. This culture is based on the freedom of academic inquiry and especially on rational discourse – scientific activity is impossible without them, and society as a whole benefits from corresponding values in a way that seldom serves as a subject of philosophical or sociological investigations.

It is because of that culture, in my opinion, that the assertion of the ideas of Open Science in society greatly influences the way that society is organized. It is probably no coincidence then that just in October 2022 the Ukrainian government has approved the National Plan regarding Open Science – as "another step on the path of Ukraine's integration into the European Research Area" [Ministry 2022]. European society has its roots in the values of democracy, academic freedom and scientific rationality, and it is indeed necessary for the Ukrainian society to adopt those values in order to become fully integrated into the European Research Area and to re-build its economy when the war would finally end. Still, all that in no way means that implementing Open Science is an easy task: many concepts that used to appear in public discourse as popular or official slogans have difficulties in translating their ideas into everyday practices. This paper has its goal in reviewing the current state of Open Science, particularly in Ukraine and in China, meaning not so theoretical explications that used to be the subject of our previous research [Mielkov 2021], but rather the ways those explications could be turned into practices – and the problems that arise on the path of such implementation.

Acknowledging Open Science in Ukraine

If we would take a look on the aforementioned National Plan regarding Open Science [Cabinet 2022], it would be easy to notice that while the topic of the plan is dedicated to Open Science in general, particular measures that are being planned mostly concern promoting open access to scientific publications and scientific information, open access to research infrastructure, and creating the conditions for successful management of information and research infrastructure – there are 20 events and measures planned in the corresponding sections for 2022–2026, while the other topics, namely popularization of science, improvement of the system of evaluation of the quality of scientific activity, and raising the level of awareness and building competence on open science issues, account totally for only 8 events and measures planned for 2023–2030.

It is not at all surprising that it is *open access* that comes to the fore: this component of Open Science was historically the first to appear – in 2022, the Budapest Open Access Initiative [BOAI 2002] already turned twenty. However, even this direction remains not exactly well known to Ukrainian university staff, and it still requires the raising of the awareness level alongside the Open Science in general. For example, a mini-survey conducted by the employees of the scientific library of the Kharkiv National University of Radio-Electronics among academics of four different departments of this higher education institution in July 2021 (the survey contained a single question: "What is open science?") has proved that none of the respondents had actually heard of the concept, and only one person out of those surveyed confessed to be familiar with the idea of open access [Vlashchenko et al. 2021: 4].

One of the first major steps on the path of raising the level of awareness of Ukrainian academics on the ideas of Open Science was the First International conference "Open science and innovation in Ukraine 2022", which had been organized by the State Scientific and Technical Library of Ukraine in collaboration with the Ministry of Education and Science of Ukraine in October 2022. The program of this event [OSIU 2022] that had many participants from both Ukraine and abroad and did focus on the practical side of the problem still reveals that the emphasis was given rather to applied aspects of Open Science: the main topics included fostering open research infrastructure, discussing current trends in research evaluation practices, providing open access to scientific literature, open research data etc. In no way it would be possible to question the necessity of considering all those topics for ensuring the development of Open Science in Ukraine, however one cannot but notice the absence of any topics related to values: the section on ethics of Open Science was in fact planned for the conference on its website, but did not appear in the program after all.

The problem with the latter is that Open Science actually present itself a complex multilayer phenomenon combining different trends and issues that deal with both behavior, practices and procedures on the 'lower' level (and the issues of open access are among them), academic infrastructure that allows scientists to enable their wide international and interdisciplinary cooperation (the 'middle' level) – and theory and values that could enable science to re-institutionalize itself in today's society as a public science (on the 'higher' level) [Mielkov 2021: 20]. As noted above, for now most events planned in Ukraine concern rather 'lower' and 'middle' levels of Open Science – the measures in question are indeed important, but it could be argued that the aspect that deals with values is no less relevant for the success of implementation of Open Science in practice. Those are such goals and values that build the motivation for academics to engage in scientific research in the first place: you can't force anyone to free rational discourse and academic inquiry unless one has the

inherent values that could serve as a driving force for those activities, and without that aspect any possible declarations would remain what they are, just declarations.

The topic of values has been reflected in some national documents though – as an example, we can consider the "Ethical Code of a Scientist of Ukraine", approved by the resolution of the general meeting of the National Academy of Sciences of Ukraine on April 15, 2009 [National Academy of Sciences of Ukraine 2009]. While the purpose of this document is said to be the formulation of general ethical principles that each scientist and teacher must adhere to in his or her work, the "Ethical Code of a Scientist of Ukraine" limits the statement of such principles to just one general phrase: "Ethics of science is based on fundamental values, norms and principles, and determines the moral behavior of a scientist, his responsibility to society". It is not explained what values are meant here and what exactly the specified moral norms consist of – even if later the document does elaborate the topic a little and deals with a scientist's moral obligation to oppose obtaining results that contradict the principles of humanism (the meaning of the latter term is not explicated either); opposing conformism, plagiarism and pseudoscience; conducting research in accordance with professional standards; protecting copyright and intellectual property, etc.

In order to see how such Codes are obeyed in practice and in order to judge the current state of practical implementation of the ideas of Open Science in Ukrainian HEIs, including the aspect of value dimensions, it would be necessary to conduct a large-scale survey among students and teachers, but it is obviously not possible under the present-day situation in Ukraine. In surveys conducted by various institutions in recent years, there were no questions about open science present, however certain opinions on scientific activity and academic values of science were still reflected there. Thus, according to the report "Students of higher education institutions of Ukraine on their studies" (2021), the vast majority of the undergraduates show interest in scientific research: for 69% of them science is either "definitely interesting" or "rather interesting", even if only 21% to 26% of students plan to pursue academic career in the future [Kharkiv Karazin National University 2021: 47]. The survey "Perspectives and needs of Ukrainian universities' development in the context of European integration", conducted by the Institute of Higher Education in 2019, turned more attention to the issue of the axiological grounds of university life and activity. Thus, among the values that shape the corporate culture of HEIs, according to the undergraduates, the most significant are "academic integrity" (55%), "openness / partnership" (51%) and "democracy" (51%) – it is worth noting that for teachers and researchers on the one hand and for managers on the other hand, only the first of those values was amongst the top three in terms of priority, while

instead of openness and democracy these two groups of interviewees chose "responsibility for the results of activities" and "responsibility for the quality of higher education". At the same time, such two important values as "academic freedom" and "inclusiveness of higher education" were unfortunately not identified as most significant by representatives of the academic community of Ukrainian universities [Kalashnikova 2019: 193–195].

In their regulatory documents, like development strategies and rectors' reports, the leading higher education institutions of Ukraine almost never mention Open Science at the moment and rarely talk about democratic values, although some of them do mention open access and plans to build institutional repositories. The few exceptions are mostly technical universities – and especially their library units. For example, the Electronic Archive of National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" as of December 2021 contained 40,263 documents, 36,427 of them publicly available, as a means for the formation and development of culture of academic integrity and prevention of plagiarism and for acknowledging the ideas of Open Science, and the strategy of development of this HEI includes such tasks as the harmonization of learning the profession by the formation of a humanistic component of world outlook of future professionals, as well as states democratization, decentralization and wide implementation of self-governance as important principles of its development that has already yielded some positive results [NTUU 2020: 16]. The situation at Lviv Polytechnic National University is no less interesting: on the one hand, the development strategy of this institution does not contain anything on the values and guidelines of Open Science, but, on the other hand, there is a project being carried out in this university since 2021 called OPTIMA – "Open Practices, Transparency and Integrity for Modern Academia" – and it is dedicated just to the implementation of ideas and practices of Open Science in Ukraine. However, it is too early to talk about real outcomes: the "Project Results" section is still empty as of November 2022 [OPTIMA Project Results 2022].

Open Science practices and values in China

While analyzing the experience of other countries and HEIs regarding the principles of Open Science it may seem naturally to turn first of all to Europe and to the USA. However, it would be more interesting and appropriate to pay attention to other regions – like China and Southeast Asia. China is much closer to Ukraine on its way to asserting new values as it also has experienced the need to move away from excessive centralization of the recent past and to adopt values of openness and democracy – something that is of no especial need to European HEIs. Besides, in terms of the size of the educational system, its contribution to the world scientific research and the potential for

its further development, the PRC exceeds almost any other country, while its education system rarely becomes the subject of study for Ukrainian scholars. The Chinese university system is the largest in the world – for example, according to the 2021 Leiden Ranking, China has 221 HEIs listed among the 1225 best universities from 69 countries, while the USA (that gets the second place) has only 200 [Centre 2021]. Even if that does not make Chinese higher education system comparable to that of Ukraine, it still makes it an adequate subject of consideration.

Reforming higher education and research activity is said to be one of the priority for development strategies and other normative documents of the national level in China. At the beginning of 2020, the Ministry of Education and the Ministry of Science and Technology of the PRC have announced a new approach to academic evaluation system. In particular, it is planned to abandon the number of papers published in internationally indexed journals as a key indicator of the quality and effectiveness of research activities and as a way to measure the level of innovation – universities are even to be banned from setting up any quantitative targets for individual researchers in regards to publishing papers [Futao 2020]. On the one hand, such an administrative and centralized approach does not allow us to talk about a HEI's autonomy, but on the other hand, it paradoxically increases the freedom of individual researchers, depriving them of the externally imposed orientation on quantitative and formal indicators, which is especially important in the field of social disciplines and humanities (the orientation that is unfortunately still in force in Ukraine). In general, the development of higher education in China since the 2000s has indeed been characterized by a contradictory phenomenon known as "centralized decentralization": institutions receive more freedom (especially compared to the whole second half of the 20th century), but also more responsibility and accountability [Mok 2006: 116]. The national program "Modernization of China's Education – 2035" was adopted back in 2019 and thus does not contain any mention of Open Science, but it does pay attention to the values of openness, by declaring the need to "pay more attention to morality, first of all, pay more attention to the all-round development", as well as to achieving equality in education at all levels and to building "intelligent campuses" and promoting "campus culture" [The State 2019].

Of course, no values, and especially no democratic values could be forced in from the above, even by the most democratic and benevolent government. However, the phenomenon of "campus culture" is indeed one of the very interesting manifestations of a holistic and value-ridden approach to the development of higher education. As Chinese scholars Xi Shen and Xianghong Tian point out, "campus culture" is the combination of various cultures created jointly by all university staff and accumulated in the form of a tradition. Its components are material culture and institutional culture, but also spiritual

culture – this one "refers to how campus person takes part in cultural activities and what results are achieved, thus reflecting the ideology, values, psychological quality and aesthetic consciousness etc." – up to creativity and academic integrity, and it is this spiritual culture that appears to be "the core and spirit of campus culture" [Shen, & Tian 2012: 62].

A more practical initiative is the creation of Chinese Open Science Network (COSN) – a "grassroots" network aimed to acknowledging and promoting Open Science practices in the Chinese-speaking academic community. However, it is difficult to talk about the results at the moment: just like the case with Lviv's OPTIMA, the relevant sections on the project website are empty by November 2022, and there are only some discussions of the essence of the relevant practices going on [Clayson 2022]. It turns out that the idea of Open Science gains its recognition among Chinese researches rather slowly: just as in the case of Ukraine, simple awareness is lacking. According to a 2020 survey, only 25.1% of Chinese academics have heard of and could say they know about open access, while almost half, 45.7%, have heard of it but do not know much about it – although roughly the same number of respondents, 44.8%, have already published in open access journals [Yangxu et al. 2021]. Wei Yang from Zhejiang University points to four obstacles on the way to the implementation of the guidelines of Open Science in general and open access in particular: 1) low reputation of open access journals among Chinese academic circles; 2) absence of a national consortium that could act as an intermediary between scientists of PRC and international publishers, protecting the rights of the former and negotiating affordable prices for publications with the latter; 3) the gap between subscription prices in China and the international price level; 4) lack of a strategy for the transformation of national journals in the direction of open access [Wei 2021: 195-196]. It is quite possible to overcome some of the mentioned obstacles – both with the world's leading publishing houses gradually accepting open access policies and with the promotion of national publications, – but the clause regarding a possible mediator between scientists and international publishers looks potentially interesting for Ukraine as well.

Dawei Ding of Yantai University and Zhengfeng Li of Tsinghua University disclose somewhat more fundamental problems related to the practical implementation of Open Science. The researchers point out that by focusing just on the technical aspects of the problem and on open access, Chinese educators ignore social and axiological issues – in particular, the fundamental contradiction between the Mertonian ethos of selfless truth-seeking, communalism, autonomy and self-governance, on the one hand, and academic capitalism – today's integration of science and commerce – on the other hand. The last factor, in particular, leads to an increase in prices for publications in leading journals: "The harm caused by the commercial operation of scientific

papers to the interests of the scientific community and the wider public has become a serious social problem" [Dawei, & Zhengfeng 2021: 203]. And even if we consider the ethos of communalism being too idealistic, the idea of Open Science is in any case opposed to monopoly and private ownership of knowledge.

The aforementioned Tsinghua University stands first among Chinese HEIs in most rankings – and second in the world to Harvard (USA) in terms of citations of the publications by its staff. Unfortunately, nothing related to Open Science could be found on the university's website – in fact, this is a feature common to almost all educational institutions of PRC, whose websites (especially in their abridged English versions) contain little information on scientific research or academic life, being rather solemn presentations of the HEI; of course, an access to student surveys is out of question either. However, certain insights about Open Science practices can be obtained in some degree from publications by scholars or from press releases. Thus, a practice worth pointing to is SciOpen: international digital publishing platform developed by Tsinghua University Press, which began functioning at the end of June 2022. In accordance with global trends in the direction of Open Science, SciOpen aims to provide a full cycle of digital publishing services and distribution for universities, communities and publishing houses of world-class journals; the founders of the platform also plan to participate in building international infrastructure for Open Science, promoting the construction of an open innovation ecosystem, and playing an active role in serving global scientific and technological innovation [Tsinghua 2022].

The University of Chinese Academy of Sciences in its current form was established only in 2012 after the reformation of the post-graduate department of the Chinese Academy of Sciences opened in 1978, but today this institution ranks third in the world in terms of the number of citations. As in almost all other cases, open access has been successfully developed in this institution for several years already, mainly in its library unit. As it can be seen from the report by Zhifang Tu, the employee of the scientific library of the HEI, the development of Open Science in China is currently almost exclusively devoted to the development of infrastructure and open access policy, and the corresponding practices are dominated by creation of three-level repositories (meaning national, institutional and library levels), their international registration and certification and their popularization among researchers, students and postgraduates (in particular, by conducting competitions for the best research article or report, etc.) [Zhifang 2021]. Practically the same can be said about Peking University, which ranks third in the country according to the above-mentioned rankings. The vice president of this institution, Gong Qihuang, in his report "Meeting the New Challenges of Open Science in the Digital Age", announced in November 2021 at the WLA

University Presidents Forum, emphasized on accelerating the development of digital infrastructure and promoting open access – although this in turn provides for the establishment of "open, transparent, equitable and inclusive rules and regulations regarding open science that would respect the diversity of academic fields and differences across countries" [PKU 2021].

That last idea is quite relevant in the context of considering the problems of implementing the ideas of Open Science into practices. As demonstrated by Sandersan Onie from Indonesia, diversity of the conditions of academic activity in different countries is a major challenge. Many scientists do not have the financial opportunity to publish, and where there is no proper level of training and infrastructure development, the ideas of Open Science are much less relevant. However it is the question of not only and not so economics and financing, but the question of academic culture in the first place. Where this research culture is still being shaped, like in such large countries as China, Brazil or India, academics get disadvantaged by government policies that favor quantity over quality: "They aim to increase publication quantity to 'catch up' with other countries, but inadvertently encourage poor research practices" [Onie 2020].

It is difficult not to agree that the key solution of transforming the guidelines of Open Science into research practices must be a systematic approach to considering the problem – on all its levels from open access and formation of infrastructure up to the spread of team cooperation and the involvement of the public. Open Science revolves around the practice of carrying out scientific research in an open manner in the broadest sense of the word, and the autonomy of the researcher turns out to be the major factor here. In addition, in the context of the scientific culture of the countries of Asia, Africa and Latin America, the struggle to recognize their results as no less significant than the those of the EU and the USA is also important. As noted by the same Sandersan Onie: "There are many anecdotal reports of papers involving non-Western samples, or asking questions that seem irrelevant to Western culture, not being readily accepted by journals. They are dismissed as being insignificant to the wider readership or viewed with suspicion because of where the research originated. One study that presented US researchers with identical abstracts found that the researchers were more likely to recommend the paper to a peer if its authors were listed as being from the United Kingdom than if they were from Malawi" [Onie 2020]. Of course, the idea here is not copying everything that is done in the EU or the USA, but trying to assert Open Science practices as more relevant to national cultures and national cultures more relevant to Open Science – in full accordance with the Universalism principle of the ethos of science [Merton 1942].

It would also be interesting to dedicate at least a couple of paragraphs to the situation with Open Science practices in HEIs in other countries of

Southeast Asia. The fact is that researchers note among the reasons for the success of such "tigers" as Singapore, Taiwan or South Korea (the states that experienced an extraordinary economic boom in the 1980s), first of all, the increased attention of authoritarian governments to higher education, which has become a strategic issue – and a highly standardized and centralized matter at that. In the 21st century such an approach looks much more questionable, as it contradicts flexibility and autonomy; Confucian values (which, by the way, turned out to be no less suitable for a market economy than Weber's "Protestant ethic", and even for a market economy with solid local features!) obviously contradict Western democratic values in this regard. However, gradual decentralization took place here to a large extent by the initiative "from above" and under the decisive, albeit unobtrusive management of governments, by shifting from state control to state supervision: "The government has changed not by handing over control but by steering from a distance by empowering institutional leaders and giving management a higher degree of autonomy and responsibility while setting up a range of performance measurement mechanisms" [Mok 2006: 71].

A similar approach obviously leaves its mark on university research practices related to the implementation of Open Science ideas. Albert G. Z. Hu of the National University of Singapore optimistically suggests that science is inherently open – it is fundamentally different in this respect from technological innovation in commercial enterprise and thus easily overcomes any economic and political prejudices [Hu 2020]. Investigating the current practices of Open Science in South Korea, a team of authors from the Korea Institute of Science and Technology Information (KISTI) notes that their country is recognized as one of the leaders in the world on that matter, as well as in the development of the digital infrastructure necessary for Open Science. Although at the national level there are still no normative and legislative acts aimed at regulating relevant practices, such acts have been implemented at the level of individual HEIs. The presence of a powerful digital infrastructure toolkit for researchers focused on promoting Open Science practices is also worth noting, in particular, such services as AccessON and ScienceON, which help, respectively, with obtaining information about data from national and global sources and with the entire research process, from the formulation of an idea to obtaining intellectual property rights, or the Korea Social Science Data Archive repository, which arose as a result of grassroots self-organization [Shmagun et al. 2022].

At the same time, the lack of legal framework and general interest on the part of politicians is noted as the factor that hinders the spread of Open Science practices, as well as the growing gap between the West and the other countries of the world and the ever-increasing dependence on international publishing houses [Shmagun et al. 2022: 13]. Obviously, a possible answer to such

challenges should be, first of all, the realization of the existing infrastructure potential and raising the awareness of scientists and the general public about the ideas of Open Science. As for the practices of a broader perspective, their definition and implementation still remains a problem of a philosophical kind, but the argument is that Open Science could not be reduced to just the procedures of open access to data and information – and the topics of social standing of science, research culture and culture of openness in general cannot escape the thoughts of academics all around the world. It's difficult to disagree with Sung-Chull Lee (Hanyang University, South Korea): "As a result of these trends, universities around the world are no longer able to settle within the confines of a campus, and above all, are changing into an open environment for the entire world as the deepening of globalization brings about ever more active exchanges among nations" [Lee 2019].

Conclusions

From the brief overview of the realization of the ideas of Open Science in research practices of HEIs it could be seen that both in Ukraine and in China, as well as in Southeast Asia as a whole, such implementation is still in its infancy. At the moment the vast majority of academics do not have adequate information on the concept of Open Science; its guidelines do not appear in institutional regulatory documents and development strategies, except for the initiatives of few individual enthusiasts and library units of technical universities. The development and implementation of Open Science is currently going in two major ways: by elaborating national plans and legislative measures on national level and by promoting procedures of open access and building the necessary infrastructure on the institutional level, although both those ways are still very far from their complete realization. At the same time, some of the practices that are being more or less successfully realized in China and other countries of the Southeast Asian region, which are at approximately the same stage of movement from excessive centralization of the higher education system to its democratization, could be useful for Ukraine as well.

Still, the main problem is a misbalance in following the guidelines of Open Science: their implementation into research practices must be a systematic approach encompassing all the levels of the concept, from open access and formation of infrastructure up to the spread of team cooperation, the involvement of the general public and acceptance of the values of the ethos of science. Open Science means not just the promotion of open access to scientific data and information, but the whole new paradigm of openness and democratization of research practices, including their decentralization and the abandonment of the externally imposed orientation on quantitative and

formal indicators of the research effectiveness, which is sadly still in force in Ukraine. Such government policies that favor quantity over quality lead not to the growing taste and motivation of university staff and students to academic inquiry, but rather to the opposite – they lessen the quality of research practices and promotes proliferation of law-prestige journals.

Of course, promoting not just procedures, but strategies and values of Open Science is not an easy task. It turns out to be especially difficult to implement the values of academic freedom and democracy declared in normative documents and development strategies into everyday research practice considering the centralized traditions of management peculiar to many countries of the world, including Ukraine and China. The direction of the further research on the topic probably leads to trying to define ways to implement values of Open Science, and not just the procedures of it, into research practices of Ukrainian HEIs.

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Юрій Мєлков. **Відкрита наука: від теорії до практики (українська та китайська перспективи)**

Статтю присвячено аналізу того, як ідеї відкритої науки знаходять шлях до дослідницької практики вищих навчальних закладів, зокрема на прикладах України та Китаю. Виявлено, що на даний момент більшість дослідників не володіють належною інформацією про концепцію відкритої науки, її орієнтири майже відсутні в нормативних документах і стратегіях розвитку ЗВО, а лише починають з'являтися в планах і деклараціях націо-

нального рівня. Демонструється, що на даний момент у центрі уваги як на національному, так і на інституційному рівнях знаходяться лише практики впровадження нижчого, «процедурного» аспекту відкритої науки, зокрема розвиток відкритого доступу до даних та інформації, тоді як підтримка цінностей демократії та академічної свободи залишається переважно декларативною. Стверджується, що відкрита наука» – це не просто просування відкритого доступу та розбудова відповідної інфраструктури, а ціла парадигма відкритості та демократизації дослідницьких практик, включаючи їх децентралізацію та відмову від нав'язаної ззовні орієнтації на кількісні та формальні показники ефективності дослідження. Втілення задекларованих у нормативних документах та стратегіях розвитку цінностей академічної свободи та демократії у повсякденну дослідницьку практику виявляється особливо складним з огляду на централізовані традиції управління, властиві багатьом країнам світу, зокрема Україні та Китаю. Проте деякі з практик, які більш-менш успішно реалізуються в Китаї та інших країнах регіону Південно-Східної Азії, що перебувають приблизно на тому ж етапі руху від надмірної централізації системи вищої освіти до її демократизації, можуть виступати корисними взірцями для України.

Ключові слова: відкрита наука, дослідницькі практики, демократизація освіти, цінності вищої освіти, вища освіта в Китаї

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