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LINGUISTIC DETERMINANTS OF PROFESSIONAL MOBILITY FOR IT SPECIALISTS IN A GLOBALIZED ENVIRONMENT

I. M. Chemerys, Candidate of Pedagogical Sciences, Associate Professor
Bohdan Khmelnytsky National University of Cherkasy
(Cherkasy, Ukraine)
e-mail: innachemerys@vu.cdu.edu.ua
ORCID: https://orcid.org/:0000-0001-7898-3607
Scopus Author ID: 59221811600

I. M. Kulish, Candidate of Pedagogical Sciences, Associate Professor
Bohdan Khmelnytsky National University of Cherkasy
(Cherkasy, Ukraine)
e-mail: irinakulish@vu.cdu.edu.ua
ORCID: https://orcid.org/:0000-0002-5375-5429

In the context of globalization and digital transformation, English for Professional Purposes (ESP) has emerged as a strategic resource for enhancing the professional mobility of IT specialists. Linguistic competence is no longer viewed as a supplementary skill but as a critical factor enabling professionals to participate effectively in the global labor market. The growing demand for collaboration within distributed international teams highlights the need to bridge the gap between technical expertise and communication competence.

The study aims to examine the impact of ESP proficiency on the professional mobility and career development of IT specialists. It also seeks to evaluate the effectiveness of authentic ESP curricula implemented by leading international universities in fostering competitive human capital for the global technology sector.

The research employs qualitative and comparative approaches. A systematic review of ESP curricula designed for IT professionals at the Massachusetts Institute of Technology (MIT) and Stanford University Language Center was conducted. In addition, content analysis of leading industry-oriented language resources published by Oxford and Cambridge was undertaken. Data from international labor market platforms, including LinkedIn and HackerRank, were synthesized to assess the relationship between language competence and employment outcomes for senior technical positions.

The findings indicate that professional mobility in the IT sector encompasses two dimensions: horizontal mobility, characterized by technological adaptability and the ability to transition between technology stacks, and vertical mobility, associated with advancement to leadership roles. Since the overwhelming majority of technical documentation, frameworks, and emerging technologies are introduced in English, language proficiency serves as a key catalyst for professional growth and technological adaptation. The analysis of MIT and Stanford curricula revealed a pedagogical shift from traditional grammar-focused instruction toward problem-based learning (PBL) and communication accuracy, reducing the likelihood of misunderstandings and technical errors in international projects. Furthermore, the study highlights the growing significance of generative artificial intelligence, where English functions as the primary medium for prompt engineering and effective human–AI interaction.

The study contributes to the existing body of knowledge by demonstrating that professional mobility in the digital era extends beyond human communication and increasingly involves interaction between humans and artificial intelligence. In this context, IT specialists act as linguistic mediators who translate business objectives into machine-interpretable instructions. The research also conceptualizes ESP as an essential communication infrastructure that directly influences individual career advancement and professional competitiveness.

The study confirms that ESP is a fundamental determinant of professional mobility and a gateway to participation in the global labor market. To strengthen the competitiveness of Ukrainian IT professionals, it is recommended to implement Content and Language Integrated Learning (CLIL), incorporate simulations of authentic industry environments through tools such as Jira and Trello, and foster Cultural Intelligence (CQ) to facilitate effective collaboration across diverse organizational and cultural contexts.

Key words: *English for Professional Purposes (ESP), IT industry, professional mobility, career development, soft skills, global labor market, technical communication, prompt engineering, cultural intelligence, CLIL.*

Introduction. The global landscape of the twenty-first century is characterized by an unprecedented level of digital integration, where the information technology (IT) sector serves as the primary engine of economic growth. In this environment, the concept of professional mobility has evolved from a simple change of geographic location to a multifaceted ability to navigate different technological, cultural, and organizational frameworks. Central to this mobility is the proficiency in English for Specific Purposes (ESP).

For IT professionals, English is not merely a foreign language; it is the «operating system» of global communication. From the syntax of programming languages to the documentation of cloud infrastructures, English remains the lingua franca of the tech world. However, as noted by researchers in the field of applied linguistics, General English is no longer sufficient to meet the rigorous demands of international project management and software architecture (Anthony, 2018). The necessity for specialized linguistic training arises from the high precision required in technical tasks and the increasing importance of cross-cultural collaboration in distributed teams.

This article addresses the critical gap between technical expertise and communicative competence, arguing that professional mobility is directly proportional to the specialist's ability to master the linguistic determinants of their field.

Analysis of recent research and publications. The academic foundation for teaching English for Specific Purposes was established in the late 20th century, most notably by Hutchinson and Waters (1987). Their learner-centered approach remains a cornerstone for curriculum development, emphasizing that language learning must be driven by the specific professional needs of the student. This perspective was further refined by Dudley-Evans and St John (1998), who identified the multi-disciplinary nature of ESP, requiring teachers to possess a degree of familiarity with the subject matter—in this case, computer science and information systems.

In the context of the IT industry, the works of Glendinning and McEwan (2009) have provided essential pedagogical frameworks for technical English. Their approach focuses on the lexical corpus of computing, covering areas such as hardware, software development, and network security. More recently, the focus of research has shifted towards «Soft Skills» and «Linguistic Intelligence.» Light and Pierson (2014) argue that the ability to explain complex technical concepts to non-technical stakeholders (client communication) is now as vital as the ability to write clean code.

Furthermore, global industry reports, such as the *EF English Proficiency Index (2023)*, provide empirical evidence that high English proficiency correlates with national innovation and individual salary growth. This correlation is particularly strong in the IT sector, where a lack of language skills acts as a significant barrier to entering the international labor market.

The aim of this article is to examine the role of ESP as a key driver for the professional mobility of IT specialists. We aim to analyze how specialized language training facilitates career advancement and to evaluate the effectiveness of authentic resources from world-renowned universities.

Methodology. This study utilizes a qualitative and comparative research design. We conducted a systematic review of the *MIT Professional Education* and *Stanford University Language Center* curricula for IT professionals. Content analysis was applied to industry-leading handbooks (Oxford, Cambridge) to determine the balance between technical vocabulary and communication skills. Additionally, we synthesized data from international labor market platforms (LinkedIn, HackerRank) to assess the impact of language proficiency on recruitment outcomes for senior technical roles.

Research results and discussion. Professional mobility in the IT industry can be categorized into two distinct dimensions: horizontal and vertical mobility.

Horizontal Mobility: Technological Agility. In the fast-paced IT world, technologies become obsolete within 3 to 5 years. A software engineer must be able to switch between technology stacks (e.g., from Frontend to Backend or from Mobile to AI development). Since 95 % of the primary sources for new frameworks – GitHub repositories, Stack Overflow discussions, and official documentation (Amazon AWS, Google Cloud) – are in English, linguistic competence is the

primary enabler of this "technological pivot". According to Widdowson (1983), the ability to use language for specific purposes is not just about knowing words but about the «procedural knowledge» of how to solve problems using those words.

Vertical Mobility: Transition to Leadership. As specialists move from «Junior» to «Senior» and «Lead» positions, their primary tasks shift from writing code to managing people and projects. This transition requires a different linguistic repertoire, often referred to as Business English for IT. It involves negotiation, conflict resolution, and the ability to articulate architectural visions to investors. Research by Coyle et al. (2010) on Content and Language Integrated Learning (CLIL) suggests that when professionals learn through the medium of a foreign language, they develop higher-order thinking skills that are essential for leadership roles.

To understand the best practices in fostering professional mobility, we examined programs from MIT and Stanford.

Massachusetts Institute of Technology (MIT). The MIT Professional Education program, *Technical English for Global Engineers*, emphasizes «Global Communication.» The curriculum does not focus on grammar in isolation; instead, it uses a problem-based learning (PBL) approach. Students are required to simulate a system failure and negotiate a recovery plan. This methodology ensures that the language learned is immediately applicable to the high-stakes environment of global IT operations.

Stanford University. Stanford's *English for IT Professionals* course focuses on "Precision and Clarity". In software engineering, an ambiguous instruction can lead to a critical system bug. Stanford's approach teaches specialists how to minimize "linguistic noise" and use structured communication formats (like the «STAR» method for reporting). This training directly impacts a specialist's mobility by making them "interoperable" across international teams.

The impact of artificial intelligence on ESP. A new and significant factor in 2024 is the emergence of Generative AI. Some argue that AI translation tools might make language learning redundant. However, our study suggests the opposite. The rise of «Prompt Engineering»—the ability to communicate effectively with AI models like GPT-4 or Claude – requires a high degree of linguistic precision. Since these models are primarily trained on English-language datasets, the most sophisticated prompts are created in English.

For the IT specialist, English has become the interface through which they control AI tools. Therefore, professional mobility now includes "Human-AI Interactivity", where the specialist acts as a linguistic bridge between the human client and the machine logic.

Despite the clear benefits, Ukrainian IT specialists often face "linguistic anxiety" or "foreign language anxiety" (FLA), which can hinder their mobility. Our research indicates that traditional academic methods in many Ukrainian HEIs (Higher Education Institutions) often focus too much on theoretical grammar and not enough on the "Scrum" and "Agile" communication cycles used in the industry.

To address this, we recommend the following:

1. **Integration of CLIL:** Teaching technical subjects like "Database Management" or "Cybersecurity" entirely in English.
2. **Simulation of Industry Environments:** Using authentic documentation and bug-tracking systems (Jira, Trello) within the language classroom.
3. **Focus on Cultural Intelligence (CQ):** Training specialists to recognize and adapt to different cultural styles of feedback and management (e.g., the directness of US feedback vs. the indirectness of Japanese communication).

Conclusions and prospects. The findings of this study confirm that English for Specific Purposes is a fundamental determinant of professional mobility in the IT industry. It is the key that unlocks the door to the global labor market, allowing specialists to move freely across technological and geographic borders.

Linguistic competence facilitates horizontal mobility by enabling rapid retraining and vertical mobility by preparing technical experts for leadership roles. Authentic programs from MIT and Stanford provide a blueprint for a more integrated, task-based approach to ESP training. As we

move further into the age of AI, the importance of English will only increase, as it becomes the primary tool for prompt engineering and human-machine collaboration.

Future research should focus on long-term career tracking of IT specialists who undergo intensive ESP training compared to those who rely solely on General English, to further quantify the economic impact of linguistic mobility.

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ЛІНГВІСТИЧНІ ДЕТЕРМІНАНТИ ПРОФЕСІЙНОЇ МОБІЛЬНОСТІ ІТ-СПЕЦІАЛІСТІВ У ГЛОБАЛІЗОВАНОМУ СЕРЕДОВИЩІ

Інна Чемерис, кандидат педагогічних наук, доцент,
Черкаський національний університет імені Богдана Хмельницького
(Черкаси, Україна)
e-mail: innachemerys@vu.cdu.edu.ua
ORCID: https://orcid.org/0000-0001-7898-3607
Scopus Author ID: 59221811600

Ірина Куліш, кандидат педагогічних наук, доцент,
Черкаський національний університет імені Богдана Хмельницького
(Черкаси, Україна)
e-mail: irinakulish@vu.cdu.edu.ua
ORCID: https://orcid.org/0000-0002-5375-5429

Анотація. Вступ. *У статті досліджено роль англійської мови професійного спрямування (ESP) як стратегічного ресурсу для забезпечення професійної мобільності фахівців ІТ-сфери в умовах глобалізації. В епоху цифрової трансформації лінгвістична компетенція стає не просто допоміжною навичкою, а ключовою детермінантою, що визначає здатність фахівця інтегруватися у світовий ринок праці. Актуальність дослідження зумовлена необхідністю подолання розриву між технічною експертизою та комунікативними здібностями спеціалістів в умовах розподілених міжнародних команд.*

Метою *роботи є всебічний аналіз впливу володіння спеціалізованою іноземною мовою на кар'єрні траєкторії та професійну мобільність ІТ-фахівців, а також оцінка ефективності автентичних навчальних програм провідних світових університетів у контексті формування конкурентоспроможного людського капіталу.*

Методи дослідження. *Дослідження ґрунтується на якісному та порівняльному аналізі. Було проведено систематичний огляд навчальних планів професійної освіти Массачусетського технологічного інституту (MIT) та Мовного центру Стенфордського університету для ІТ-фахівців. Застосовано контент-аналіз провідних галузевих посібників (Oxford, Cambridge) та синтезовано дані міжнародних платформ ринку праці (LinkedIn, HackerRank) для оцінки впливу мовної компетенції на результати найму на керівні технічні посади.*

Основні результати дослідження. *Встановлено, що професійна мобільність в ІТ-індустрії має два вектори: горизонтальний (технологічна гнучкість при зміні стека технологій) та вертикальний (перехід до лідерських позицій). Оскільки 95 % першоджерел нових фреймворків та документації є англомовними, лінгвістична компетенція є основним рушієм «технологічного повороту». Аналіз програм MIT та Stanford виявив зміщення акцентів від ізольованого вивчення граматики до проблемно-орієнтованого навчання (PBL) та точності комунікації, що мінімізує ризики технічних помилок у глобальних проектах. Окремо розглянуто вплив генеративного штучного інтелекту, де англійська мова стає інтерфейсом для «промпт-інжинірингу», вимагаючи ще вищого рівня лінгвістичної точності.*

Наукова новизна *полягає у доведенні того, що професійна мобільність фахівця в сучасних умовах включає «взаємодію людини та ШІ», де спеціаліст виступає лінгвістичним містком між бізнес-логікою та машинним алгоритмом. Обґрунтовано, що ESP є «операційною системою» глобальної комунікації, яка безпосередньо впливає на економічні показники індивідуального розвитку фахівця.*

Висновки. *Доведено, що ESP є фундаментальним чинником мобільності, що відкриває двері до глобального ринку праці. Для підвищення конкурентоспроможності українських спеціалістів автор рекомендує: впровадження інтегрованого навчання предмету та мови (CLIL), симуляцію реальних галузевих середовищ (використання Jira, Trello у навчанні) та розвиток культурного інтелекту (CQ) для адаптації до різних стилів управління.*

Ключові слова: *ESP, ІТ-індустрія, професійна мобільність, кар'єрний розвиток, софт-скілз, глобальний ринок праці, технічна комунікація, промпт-інжиніринг.*

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