

SOCRATIC LECTURES



10TH INTERNATIONAL SYMPOSIUM,
LJUBLJANA, 9. DECEMBER 2023
PEER REVIEWED PROCEEDINGS PART I

EDITED BY:

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Socratic Lectures

10th International Symposium, Ljubljana, December 9, 2023

Peer Reviewed Proceedings, Part I

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The members of the Organizing Committee of 10th Socratic Lectures: Mariam Chkhikvishvili, Drago Dolinar, Alima Dostiyarova, Mitja Drab, Vladimira Erjavec, Tjaša Griessler Bulc, Tomaž Gyergyek, Aleš Iglič, Yelena Istileulova, Monika Jenko, Gvantsa Jichoshvili, Boštjan Kocjančič, Samo Kralj, Veronika Kralj-Iglič, Larisa Melia, Alenka Nemeč Svete, Makhanov Nursultan, Vesna Osojnik, Gabriella Pocsfalvi, Irena Pulko, Anna Romolo, Gitta Schlosser, Špela Tadel Kocjančič, Polonca Trebše, Renata Vauhnik

Program of the Symposium Socratic Lectures, December 9, 2023, 10:30 – 14:00 (Ljubljana time)

10.30 Welcome to participants (Veronika Kralj-Iglič, University of Ljubljana) <https://uni-lj-si.zoom.us/j/98919724250>

10.35 -11.15 Plenary lecture: Bernd Giebel, Institute for Transfusion Medicine University Hospital Essen, Germany: Clinical Potential of MSC-EVs and Translational Challenges

Scientific sections

Section 1: Human medicine, organized by Špela Tadel Kocjančič

First group:

- 11.30 - 11.50 **Tsanava K:** Ongoing Toxic epidermal necrolysis (TEN) complicated with acute kidney injury (AKI)
- 11.50 - 12.10 **Malidze D:** Effect of Colchicine on atrial fibrillation onset prevention in patients with coronary artery diseases
- 12.10 - 12.25 **Kolar M:** Geometrical specificities of femora fractured secondary to total hip replacement
- 12.25 - 12.45 **Tadel Kocjančič Š:** COVID-19 and extracorporeal membrane oxygenation (ECMO)
- 12.45 - 13.00 **Ipavec M:** Experience with smart above knee prosthesis
- 13.00 - 13.15 **Amon M; Kresal F:** Therapeutic potential of hypoxia
- 13.15 - 13.30 **Kovačič P:** Decoding the facial expressions of cats: Insights through scientific illustration

Section 2 : Human medicine orgnaized by Larisa Melia

Second group:

- 11.30 - 11.50 **Bensal R:** Enterohemorrhagic E-coli leading to haemolytic uremic syndrome- Case study and review
- 11.50 - 12.10 **Khelaia A:** Metabolic endotoxemia and male infertility
- 12.10 - 12.25 **Sulukhia R, Melia L, Davidova N, Pkhaladze L:** Pregnancy complications in patients with endometriosis
- 12.25 - 12.45 **Mantskava M:** Blood rheology properties in patients with acute lymphoblastic leukemia
- 12.45 - 13.00 **Khatuna K:** Sebaceous nevus in children: clinical-dermoscopic differences
- 13.00 - 13.15 **Jabua M, Gognadze T:** Jprner's syndrome caused by ultrasound guided supraclavicular nerve block (Aversi Clinic)
- 13.15 - 13.30 **Vojkovič R:** Epidemiology of periprosthetic proximal femur fractures



Section 3: Veterinary medicine

First group: organized by **Mariam Chkhikvishvili**

- 11.30 - 11.50 **Mamukelashvili N, Kalandia E**, Georgian Mountain Dog – Kartuli Nagazi
- 11.50 - 12.10 **Mamatsashvili G, Kereselidze M, Beruashvili M, Mikadze K**: Justification of the ways of landscape-epizootological-ecological monitoring in order to determine the risk of a possible or expected outbreak of anthrax disease and to minimize the risk
- 12.10 - 12.30 **Nebieridze S, Kereselidze M, Beruashvili M, Zibzivadze M**: Food safety problems in Georgia
- 12.30 - 12.50 **Arko M et al.**: Extracellular particles from bovine and equine milk
- 12.50 - 13.10 **Chkhikvishvili M, Milashvili N, Omarashvili N**: Benefits of flank spay in cats – compared to midline spay in cats - compared to midline spay
- 13.10 - 13.30 **Plavšič Z, Bee-Wellness**: Apitherapy and the pursuit of vitality

Section 4: Veterinary medicine

Second group: organized by **Vladimira Erjavec**

- 11.30 – 11.50 **Šimundić M**: Urinary tract infection in dog and cat
- 11.50 - 12.10 **Dučić N**: Feline tooth resorption - Experiences from the clinic of veterinary dentistry at University of Sarajevo
- 12.10 - 12.30 **Vejzović A**: Exotic animals vascular system characteristics and its application in clinical practice
- 12.30 - 12.50 **Beletić A**: Glycosylation research in bovines-the significance and recent updates
- 12.50 - 13.10 **Vasić Vilić J**: Apitherapy - our experience
- 13.10 - 13.30 **Erjavec V, Lukanc B**: Retrospective review of 27 cases of congenital portosystemic shunt in dogs from 2015 to 2023

Section 5: Physiotherapy organized by **Renata Vauhnik**

- 11.30 - 11.45 **Ošlak A**, Effects of therapeutic approaches in treating varus malalignment of the knee joint
- 11.45 - 12.00 **Vrbinc NK**, The Impact of sleep deprivation on physical activity
- 12.00 - 12.15 **Urbančič Š**, Physiotherapy approach for treating lateral epicondylalgia
- 12.15 -12.30 **Štuhec M**, Physiotherapy approach for treating De Quervain tenosynovitis during and after pregnancy
- 12.30 - 12.45 **Močilar M**, Telerehabilitation to improve balance and mobility in patients post- stroke
- 12.45 - 13.00 **Battalian T**, Respiratory management of Acute Respiratory Distress Syndrome (ARDS) in the ICU from early diagnosis: narrative review
- 13.00 - 13.15 **Hemery K**, Adherence of musculoskeletal patients to home exercise programmes



13.15 - 13.30 Vauhnik R, Zuil Escobar JC, Martinez Cepa C, Functional approach to musculoskeletal injuries in physiotherapy: A COIL project in Physiotherapy

Section 6: Prosthetics organized by **Monika Jenko, Drago Dolinar, Boštjan Kocjančič**

11.30 - 12.00 Russo A, New trends in knee prosthesis alignment

12.00 - 12.15 Kocjančič E, Hip arthrosis and endoprosthesis

12.15 - 12.30 Merčun A, Trabecular tital hip arthroplasty - glimpse of past

12.30 - 12.45 Hojker M, Implant failure in metal-on-metal hip endoprosthesis

12.45 - 13.00 Kocjančič B, Oxidized zirconium in hip prosthesis

13.00 - 13.15 Dolinar D, Study of surface and biointerface phenomena of implant materials and biosystems

13.15 - 13.30 Jenko M, The mechanisms of premature fracture in modular-neck stems made of CoCrMo/Ti6Al4V and Ti6Al4V/Ti6Al4V Alloy

Section 7: Green transition organized by **Tjaša Griessler Bulc, Sylwester Rzoska**

11.30 - 11.50 Rzoska S, When physics meets life: high pressure processing for food and pharmaceuticals

11.50 - 12.10 Zaskavska K, Salun M, Strategies for resilience in a dynamic world. From VUCA to BANI

12.10 - 12.30 Lavtižar V, Circular Economy: Designing a new, greener world

12.30 - 12.50 Cepec E, Griessler Bulc T, Istenič D, Uncovering algae biomass potentials: from wastewater to biostimulants

12.50 - 13.10 Klemenčič L, Istenič D, Griessler Bulc T, Challenges of the efficient algae harvesting

13.10 - 13.30 Mežnar E, Štuhec A, Istenič D, Godič Torkar K, Occurrence of antimicrobial resistance in bacteria of faecal origin at different stages of treatment in two municipal waste water treatment plants

Section 8: New world organized by **Polonca Trebše**

11.30 - 11.50 Uridia R, Kereselidze M, Barbakadze N, Karkashadze N, Tserodze N, Aflatoxin-inhibiting Adsorptive Nanocomposites Based on Natural Raw Material - Lignin

11.50 - 12.10 Nenadović M, Kržišnik K, Trebše P, Bavcon Kralj M, Effect of time, pH, alcohol and sugar content on nicotine release from pouches available on Slovene market

12.10 - 12.30 Kaporov A, Zore A, Maniecki T, Trebše P, Synthesis and application of Co-MOF compounds based on 2-methylimidazole and 2,5-dihydroxyterephthalic acid

12.30 - 12.50 Roganović A, Istileulova Y, Lithium-ion battery project: ESTEAM perspectives

12.50 - 13.10 Turnšek A, Kresal F, Physiotherapy and treatment of neuropathic pain

13.10 - 13.30 Haque MdM, The effects of energy on protein misfolding and aggregation



Section 9: Therapeutic plasma organized by **Veronika Kralj-Iglič** and **Gitta Schlosser**

- 11.30 - 11.45 **Steiner N**, Effect of autologous therapeutic plasma on wound healing after operation in the ear
- 11.45 - 12.00 **Schlosser G**, Mass spectrometry of samples with extracellular particles
- 12.00 - 12.15 **Michelini S**, Quantification of growth and inflammatory factors in platelet- and EV-rich plasma (PVRP): an update
- 12.15 - 12.30 **Starzonek S**, Following erythrocyte sedimentation by optical methods
- 12.30 - 12.45 **Penič S**, Sensor for sedimentation of erythrocytes
- 12.45 - 13.00 **Berry M**, Validation of Interferometric Light Microscopy for assessment of extracellular vesicles in plasma: Preparing the path for future clinical practices
- 13.00 - 13.15 **Paliska N**, Operating sirens - The highest notes in Mozart's vocal works
- 13.15 - 13.30 **Ulokina O**, Hommage to Sergej Rachmaninov

Section 10: Farm extracellular vesicles organized by **Gabriella Pocsfalvi**

- 11.30 - 10.50 **Moubarak M**, Tomato extracellular vesicles
- 11.50 - 11.10 **Robledo G**, Microfluidics for extracellular vesicles
- 12.10 - 12.30 **Schabussova I**, Bacterial extracellular vesicles
- 12.30 - 12.50 **Cillo F**, Extracellular vesicles – virus interplay
- 12.50 - 13.10 **Vaino S**, In vitro analysis of farm extracellular vesicles
- 13.10 - 13.30 **Kwang-Pyo K**, Mass spectrometry – based extracellular vesicles analyses

Section 11: Sustainable use of polymers organized by **Irena Pulko**

- 11.30 - 11.40 **Pulko I**, Bioplastics and sustainable development
- 11.40 - 11.50 **Viltušnik B**, Industry 4.0 and sustainable development
- 11.50 - 12.00 **Oberleitner A**, Controlled modification of biopolymers and their versatile applications
- 12.00 - 12.10 **Bolka S, Nardin B, Pešl T, Rozman T**, The effect of size and surface treatment of nucleating agents on PA6 morphology studied by Flash DSC
- 12.10 - 12.20 **Verbič A, Golja B, Likozar B, Novak U**, Unveiling PFAS-free solutions for Hydrophobic and Oleophobic textile coatings
- 12.20 - 12.30 **Hriberšek M, Kulovec S**, Design Optimization and Fatigue Evaluation of Wood Composite Gears
- 12.30 - 12.40 **Bolka S, Nardin B, Pešl T, Rozman T**, The Use of Different Fractions of Waste Thermosets for Thermoplastic composites
- 12.40 - 12.45 **Kusič D**, Sustainable use of polymers using the AMT2P e-platform in the field of robotics, 3D printing and injection molding



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- 12.45 - 12.50 **Kusič D**, CIRCI – The application of circular economy principles in industry processes
- 12.50 - 12.55 **Kusič D**, Optimisation of Production by 3DP
- 12.55 - 13.00 **Kusič D, Kusič D**, Presentation of the AIS measuring system for polymer injection control
- 13.00 - 13.10 **Sever Škapin A, Mušič B**, Weathering effect of the cellulose acetate microplastic from discarded cigarette butts
- 13.10 - 13.20 **Horvat B, Mušič B**, Green Transition in Building and Civil Engineering Industry, Alkali-Activated Materials and Alkali-Activated Foams

Section 12: Colloids and membranes organized by **Aleš Iglič**

- 11.30 - 11.50 **Raj Kumar S**, Coiling of cellular protrusions around fibers
- 11.50 - 12.10 **Cordoyiannis G, Bar L, Losada-Pereza P**, Experimental studies of biomimetic membranes by means of quartz crystal microbalance
- 12.10 - 12.30 **Mesarec L**, Orientational ordering of curved membrane proteins attached to curved membrane surfaces
- 12.30 - 12.50 **Benčina M**, Stainless steel in biomedical applications
- 12.50 - 13.10 **Rawat N**, Nanostructured TiO₂ for selective biological response
- 13.10 - 13.30 **Birk L**, Use of gaseous plasma for dental applications

Section 13: Physics of matter organized by **Tomaž Gyergyek**

- 11.30 - 12.10 **Matej Daniel**, Schrodinger equation
- 12.10 – 12.20 **Žulj T**, Dark matter
- 12.20 – 12.30 **Panov P**, Use of electromyography in neuroprosthesis control
- 12.30 - 12.40 **Navarette Armisen R**, Rankine cycle, steam turbines and optimization of its efficiency
- 12.40 - 12.50 **Garcia Moya L**, Maxwell's equations
- 12.50 - 13.00 **Vitkovski F**, Nanoelectronics
- 13.00 - 13.10 **Chikh N**, Effect of a lightning strike on an airplane
- 13.10 - 13.20 **Pinilla Doblaz E**, The Doppler effect
- 13.20 - 13.30 **Barriola Andraga N**, Carnot cycle

Section 14: Topology and particles organized by **Samo Kralj**

- 11.30 - 12.00 **Dobovišek A**, Principle of maximal entropy
- 12.00 - 12.30 **Markovič R**, Biological systems and networks
- 12.30 - 13.00 **Krajnc T, Goričan G, Čokor E, Bucik D, Kralj S**, Particle description of nature



13.00 - 13.10 **Savujec M**, Caloric effects in liquid crystals

13.10 - 13.20 **Hoebel A**, Quasi-particles in liquid crystals

13.20 - 13.30 **Zid M**, Topological charge conservation

Section 15: Digital Transformation organized by **Makhanov Nursultan**

11.30 -11.45 **Makhanov N**, AI in Medicine: Federated Learning and Medical Imaging

11.45 -12.00 **Nurseitov A**, Innovative Approaches to Language Learning through the Lens of Use Artificial Intelligence

12.00 - 12.15 **Protasenko O**, Digital education in the development of the company's human capital

12.15 - 12.30 **Dybach I**, Features of the formation of cross- cultural communication skills in it business

12.30-12.45 **Vlasenko T, Nemashkalo K, Shapovalova I**, Digital transformations: trends and perspectives worldwide

12.45-13.00 **Salun M, Zaslavska K**, Strategies for resilience in a dynamic world: from VUCA to BANI

13.00 - 13.15 **Haborets O, Kushkovyi A**, OSINT Technologies: Applications and Challenges in the Digital Age

13.15 -13.30 **Lunhol O, Torhalo P**, Artificial Intelligence in Law Enforcement: current state and development prospects

Section 16: Science meets Business, Innovation and Art organized by **Yelena Istileulova**

11.30 - 11.50 **Kublashvili B, Maglakelidze T**, Transformative trends: A paradigm shift to student-oriented learning in higher education

11.50 - 12.10 **Tokushev D**, Corporate social responsibility as the key factor of sustainable development of business

12.10 - 12.30 **Ovin R, Geder M**, Development gaps at public universities in the region – the case of Slovenia

12.30 - 12.50 **Cizelj B**, Challenges of modernising university curricula in Europe

12.50 - 13.10 **Dostiyarova A**, Start-up simulation in change management; students experience

13.10 - 13.30 **Istileulova Y**, Innovations, arts and artificial intelligence: Innovative teaching and learning through STEAM approach (SMS method)

Section 17. How to organized by **Mitja Drab**

11.30 - 12.00 **Kregar A**, How to encode the date of Younger Dryas comet impact on the stone pillars of Gobekli Tepe

12.00 - 12.15 **Drab M**, How to shape cells using membrane inclusions

12.15 - 12.30 **Turk J**, How to model small length scale deformations of injection-molded parts

12.30 - 12.45 **Jan M**, How to think about the nature of Descartes' ideas

12.45 - 13.00 **Sojcecka AA**, How to think about Universal patterns of global population change: from doomsday day growth to the reversed criticality



13.00 - 13.15 **Kostanjevec J**, How to say the right thing? Remarks on expressivity and thinkability in recent debates on category theory

13.15 - 13.30 **Marin A**, How to hide: Camouflage from ultraviolet to infrared

13.35-13.55 Honorary lecture for all participants

Marjana Rupnik, European Commission, Language Department, Linguistic Professions in the European Union Institutions and Artificial Intelligence

13.55-14.00 Cultural program

Agata Angelika Sojecka - harp, Borys Urbanowicz - viola
C. Saint-Saens - The Swan
G. Faure - Apres un reve

14.00 Closing of the symposium <https://uni-lj-si.zoom.us/j/98919724250>



Editorial

10th Socratic Lectures consisted of three events: an Organ recital of Roberta Schmid from Naples, Italy at the Church of Assumption, Tromostovje, on Friday, 8.12. 2023. Roberta Schmid took her diploma in Organ and Organ Composition at the Musical Conservatoire "S. Pietro a Maiella" in Naples with the mentorship of prof. A.M.Robilotta and then improved her technique with maestros L. Ghielmi, E. Kooiman, M. Radulescu, D. Roth, K. Schnorr, L. F. Tagliavini, M. Torrent, P. Westerbrinck and W. Zerer. She specialized in Italian and German Organ Music Interpretation at the Musical Academy in Pistoia and in Gregorian Chant at the International Study Centre of Gregorian Chant in Cremona. She performed as a soloist and in chamber formations in XXVIII Festival Internazionale di Noale, Rassegna Antichi organi di Piacenza, Associazione Alessandro Scarlatti di Napoli, Associazione Studi Mezzogiorno, Associazione Ricercare, Accademia Organistica Campana, Rassegna organistica internazionale di Avezzano, Rassegna organistica di Pescara, Settembre Organistico Fabrianese, Rassegna organistica veneta "Musica nell'Agordino" , Rassegna "Musicalia" in Pavia, Festival Organistico Internazionale Città di Senigallia, Rassegna Organistica di Fiemme (Trento), Rassegna organistica della Svizzera Italiana, International festivals at Notre Dame de Compassion in Paris, Merano Cathedral, Amalfi Cathedral, S. Vitale's Basilica in Ravenna, S. Ambrogio's Basilica in Milan and in Mexico City. She has recorded a CD of Bach and pre-Bach music sponsored by the Goethe-Institut, Italy. Presently she is Artistic Director of the Festival "Musica intorno all'organo" at the St. Maria della Rotonda Church in Naples and organist of Mascioni mechanical organ at St. Maria della Rotonda Church and at Santa Chiara's Basilica in Naples. www.robertaschmid.com

Program of the organ recital of Roberta Schmid

J.S. Bach: Wachet auf, ruft uns die Stimme, BWV645

N. Bruhns: Praeludium in e minor (the Great)

P. A. Yon: Toccata for Flute

W. A. Mozart: Fantasia in f minor K594

J.S. Bach: Nun komm, der Heiden Heiland, BWV 659

C. Franck: Choral in b minor

C. M. Widor: Toccata from Symphony V

The next day, scientific symposium took place online. **The plenary lecture** on mesenchymal stem cell extracellular vesicles was donated by **prof. Bernd Giebel** from Essen, Germany, followed by 17 scientific sections. The symposium was organized by the Centre of lifelong learning of the Faculty of Health Sciences, University of Ljubljana in collaboration with Universities from Georgia, Spain, Ukraine and Kazakhstan. There were about 200 participants from 21 countries. The subjects of interest were medicine, natural sciences, green transition, digital transition, business, social sciences and education. There were two sections on extracellular particles. At the closing of the symposium **Agata Angelika Sojecka** and **Borys Urbanowicz** from Poland performed The swan (by C. Saint Saens) and Apres un reve (By G. Faure) on harp and viola, respectively.

On Monday, 11.12.2023 the accompanying social event was held at the Academy of Music, Palace Kazina. The event included classical and contemporary music performed by musicians and by scientists.

Concert on December 11 at 18.00 was in person at Pallace Kazina, Ljubljana



Program of the Concert

Classical music, Concert Hall of Julij Betteto

J.S. Bach: Wachet auf, ruft uns die Stimme BWV645, organ: Roberta Schmid

J.S. Bach: Toccata and fugue in d minor BWV 565, organ: Roberta Schmid

D. Cimarosa: Concerto for two flutes and piano, flutes: Anita Prelovšek and Sara Brumat, piano: Elena Startseva Somun

D. Cimarosa: Two sonatas for piano, piano: Matic Bogataj

M. Ravel: Blues, Moderato from Sonata No.2 for violin and piano, violin: Branko Brezavšček, piano: Elena Startseva Somun

J Pachelbel: Canon in D, piano: Elena Startseva Somun

G. Caccini: Ave Maria, soprano: Kaya Tokuhisa, organ: Jana Jamšek

Anonymus: Amazing grace, soprano: Kaya Tokuhisa, organ: Jana Jamšek

Contemporary music, Club Kazina

P. de Seneville, Marriage d'amour, classical ballet: Darja Eržen, Jelena Ficzkó, Lara Elisabeth Lee, piano: Jana Jamšek

A. von Sultanova: JC Maxwell, Moja domovina, JR Oppenheimer, voice and piano: Yelena Istileulova

A. Chailleux: Andante et Allegro, saxophone: Teodor Herem

F. Kuchler: Concertino for violin and piano, violin: Živa Bratko, piano: Barbara Smrke

In the club Kazina, another memorable social event was held to create a network uniting scientists and artists.

Wellcome to the next Socratic lectures. Contact kraljiglic@gmail.com or annaromolo@gmail.com

Veronika Kralj-Iglič, Yelena Istileulova and Anna Romolo



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Invited lecture/Review

Features of the Formation of Cross-Cultural Communication Skills in IT Business

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Abstract:

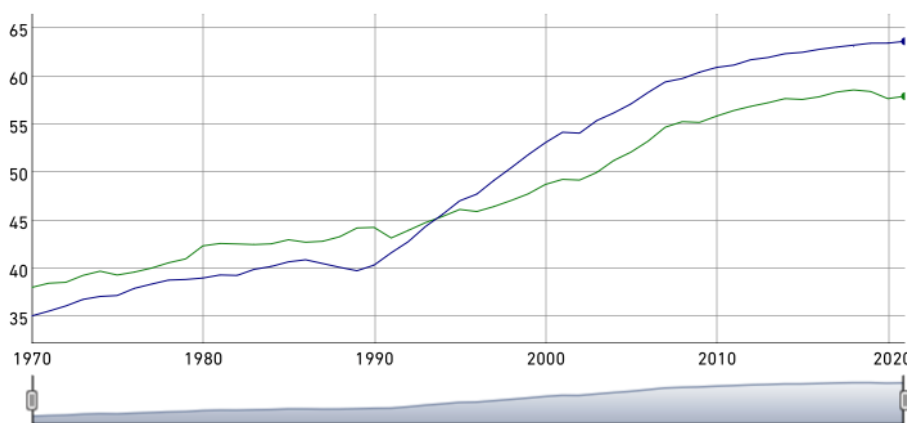
Effective establishment of cross-cultural communication is a prerequisite for business success, regardless of the field in which it is organized or already exists. The issue appears especially relevant against the background of the rapid development of information technologies, digitalization, socialization, and globalization of business. Cross-cultural communication is a process of information exchange among representatives of different cultures, which aims to establish mutual understanding through the achievement of conformity of different culturally determined value systems. As the sector of information technology grows ever more complex, Information Technology (IT) professionals are called upon daily to explain technology applications to coworkers from other departments, managers, and customers. Building effective cross-cultural communication within an IT company and establishing the right communication links with stakeholders affect the effectiveness of management decisions both at the operational and strategic levels. Barriers to the formation of cross-cultural communication skills in the IT industry include IT professionals being used to working in isolation or functioning within tight-knit teams, differing work expectations, varying values and customs, and different levels of technological knowledge. Formation of cross-cultural communication skills should create a basis for effective establishment of communication in the development team, providing support for the common organization of the group work on the processing of general information and information linked to the project, creating conditions for collaborative software development, and promoting the formation and development of corporate culture in IT companies.

Keywords: Communication; Cross-cultural communication; Skills; IT business; IT services; IT team



An established part of the modern world is globalization. Globalization means that there is an increase in the interaction and interdependence between different countries and regions of the world in the field of economy, social, politics, ecologic, and culture. The globalization has been accelerated by many factors, including the increased inter-national interconnectedness, the increased migration, both legal and illegal, particularly from less-developed to more-developed countries, and the ability of information and communication technology (Thomas & Inkson, 2017). In a general sense the process of globalization is forming an infinite world, when state borders turn into formalities on the path of displaced both factors and results of processes of human management of the mankind.

Despite the talk of de-globalization (Qu & Yang, 2023; Salavrakos, 2023), the globalization index shows a growing trend (Figure 1). Moreover, the WTO report (World Trade Report 2023, 2023) contends that international trade continues to thrive and points to the expansion of digital services trade. And, the global IT services market size is expected to grow at a compound annual growth rate (CAGR) of 9.7% from 2023 to 2030 (IT Services Market Size And Share Analysis Report, 2030).



2021: Index - De facto: 57.94 Index - De jure: 63.65

Figure 1. The dynamics of the globalization index (KOF Globalisation Index, 2023).

Definitely, globalization creates significant advantages for the IT business. The main ones are easier access to new sales markets, the possibility of attracting highly qualified specialists from around the world, acceleration of technology transfer, etc. At the same time, it also presents several problems and challenges: increases the risks of infringement of intellectual property rights; intensifies competition both in the sales market and in the labor market, creates threats to cyber security, and increases the problems of cultural, ethical and legal compliance. The problem of establishing effective cross-cultural communication is especially acute for the IT sector. Cross-cultural communication is a process of information exchange among representatives of different cultures, which aims to establish mutual understanding through the achievement of conformity of different culturally determined value systems (Sahadevan & Sumangala, 2021).

Cross-cultural communication is of paramount significance in the IT industry, driven by globalization, multinational workforces, the need for effective collaboration, and the importance of building strong client relationships. It plays a pivotal role in problem-solving innovation, and adaptation to global markets. Moreover, it influences talent acquisition and retention while fostering cultural sensitivity, making it a vital skill for success in this dynamic and competitive field. That's why the significance of cross-cultural communication skills in the IT sector has grown fast. Effective cross-cultural communication is not just a desirable skill; it's a necessity for success in this dynamic and ever-evolving field.

The goal of research is to investigate and understand the specific aspects, challenges, and effective tactics involved in developing cross-cultural communication skills within the IT industry. Moreover, the publication aims to furnish an information, insights, and guidance, pivotal in enhancing the communicative competencies of individuals, enterprises,



and information technology professionals. This enhancement is particularly crucial for navigating and excelling in cross-cultural interactions, thereby facilitating efficacious collaboration and operational success within the intricate of a globalized environment. The IT industry is continuously growing in complexity, requiring IT professionals to regularly communicate the utilization of technologies to colleagues from various departments, managers, customers, and interested parties. It is unquestionable that the development of efficient cross-cultural communication within an IT organization and the establishment of appropriate communication channels with stakeholders significantly impact the effectiveness of managerial decisions, both at the operational and strategic levels. Barriers to the development of cross-cultural communication skills in the IT business are multifaceted and can pose significant challenges for IT professionals. These obstacles often arise from the unique dynamics and characteristics of the IT field:

1. **Isolated work:** Information Technology professionals frequently exhibit a proclivity for solitary labor or working within tightly-knit teams of similarly specialized confreres. The shift towards an environment characterized by global dimensions necessitates a significant adaptation towards a paradigm that is inherently more collaborative and heterogeneous. This transition poses a substantial challenge for individuals who are habituated to autonomous activities. The demands for heightened intercultural interaction and diverse team dynamics require a recalibration of both professional and interpersonal skill sets in globalized professional contexts.
2. **Divergent Occupational Expectations:** Distinct cultural milieus exhibit variegated norms and anticipations concerning professional temporal allocation, the equilibrium between vocational and personal life, and methodologies employed in problem resolution. The process of maneuvering through these dissimilarities and achieving a concordance of expectations creates multifaceted challenges and may require compromise and flexibility.
3. **Different Cultural Values and Customs:** Cultural diversity often means that people have different values, norms, and traditions. These differences can be seen in workplace behavior, ways of communication, and how decisions are made. Therefore, IT professionals need to be really aware of and sensitive to these varied cultural aspects. Understanding and respecting these differences is crucial for effective communication across cultures, especially in today's global work environment.
4. **Heterogeneity in Technological Proficiency of Knowledge:** Professionals in the field of Information Technology may frequently interface with clients or collaborators possessing a different spectrum of expertise in technological domains. The task of articulating intricate technical concepts to stakeholders with primary proficiency in technological matters presents a substantial challenge. This task necessitates the cultivation of a communicative skill set that is adept at converting complex information into comprehensible and accessible formats, thereby bridging the knowledge gap and facilitating effective knowledge transfer.
5. **Language Impediments:** Disparities in language present a notable obstacle within the realm of cross-cultural communication. Professionals engaged in the Information Technology sector frequently employ a lexicon replete with technical jargon and specific terminologies, which might pose comprehension challenges for individuals who are not native speakers of English or those hailing from diverse linguistic origins. This linguistic divide necessitates an increased focus on the clarity and adaptability of language use, ensuring that communication remains accessible and comprehensible.

Forming cross-cultural communication skills in the IT business involves a combination of methods and strategies that individuals and organizations can employ. Developing cross-cultural communication skills should establish a foundation for facilitating effective communication within the development team. In the world of IT development, teams often consist of professionals from various cultural backgrounds. The ability to communicate effectively and consider cultural differences contributes to seamless and productive teamwork.



Drawing upon the scientific work of N. A. Dlugunovych and Yu. V. Forkun (Длугуневич и Форкун, 2017), it is pertinent to acknowledge that the cultivation of intercultural communication competencies necessitates the facilitation of collaborative group endeavors. Such collaborative frameworks should encompass the assimilation and synthesis of information related to distinct project-oriented objectives. This approach underscores the importance of integrating diverse perspectives and expertise in the collective processing of information, thereby enriching the scope and depth of intercultural communicative practice. It involves the processing of shared information distributed among teams and related to the project. Efficient collaboration and resource-sharing improve project productivity. The advancement of cross-cultural communicative proficiency is imperative in fostering an environment that is optimally suited for collaborative endeavors in software development. Within the domain of software engineering, the act of collaboration with colleagues from an array of cultural backgrounds is a basis for the genesis of innovation and the appearance of creative problem-solving ways. The capacity to amalgamate and synergize ideas emanating from a plethora of cultural vantage points not only augments the value of software products but also significantly propels the velocity of product development cycles. This multicultural approach to software development is instrumental in enhancing both the quality and efficiency of technological innovations.

Furthermore, the facilitation of cross-cultural communication plays a pivotal role in cultivating an environment that is propitious for the establishment and nurturing of corporate culture within Information Technology enterprises. Painstaking consideration of cultural subtleties is instrumental in the development of an internal organizational philosophy that not only promotes harmonious collaboration but also bolsters the morale of the workforce. This approach is critical in engendering a cohesive and productive corporate atmosphere, thereby enhancing both employee satisfaction and operational efficiency.

The improver of cross-cultural communicative competencies within an IT company necessitates a synergistic blend of both individual initiative and organizational strategy. It is imperative to embark upon a detailed exploration of the methodologies and approaches that can be adopted by IT professionals, as well as the enterprise entity in its entirety, to augment these essential skills. IT-professionals and the company as a whole can take a number of steps to improve these skills.

For IT specialists, it will be useful to increase their cultural awareness, cross-cultural learning, language skills in the context of IT business, cultural sensitivity, and practice active listening during cross-cultural interactions. They should cultivate empathy for colleagues from different cultures, seek feedback from colleagues of different cultures about their communication styles, and seek mentoring from colleagues who have experience in cross-cultural communication.

Developing cross-cultural communication skills in an IT company requires a company-wide commitment to diversity, cultural sensitivity, and ongoing training. When the organization as a whole actively works to enhance these skills, it can lead to more productive and harmonious cross-cultural interactions within the IT industry. The main steps for forming cross-cultural communication skills for companies are: offering cross-cultural training programs to all employees; implementing diversity and inclusion initiatives that promote cultural diversity within the workplace; establishing clear communication channels for employees to report any issues related to cultural misunderstandings or conflicts; providing access to cultural resource materials, such as books, documentaries, and online resources, that employees can use to expand their cultural knowledge; implementing cultural competency assessments or surveys to gauge employees' understanding of cross-cultural communication; encouraging cultural diversity in leadership positions to reflect the company's commitment to inclusivity; scheduling regular check-ins with international teams or colleagues to ensure that communication is effective and to address any issues promptly.

Conclusion

In conclusion, the pivotal role of cross-cultural communicative skills within the Information Technology sector, particularly in the context of an increasingly globalized milieu, cannot be overstated. The successful navigation of this complex, international landscape



necessitates a concerted and dual-faceted approach, encompassing both individual endeavors and organizational strategies. The acquisition and refinement of these cross-cultural communication skills are imperative for IT professionals, as they facilitate effective engagement with representatives of different cultures. This, in turn, improves productivity and sparks innovation, while simultaneously addressing the multifarious challenges inherent in the globalized business. Such competencies are integral to the sustenance and advancement of the IT industry in its pursuit of global interconnectedness and technological progress.

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