

AUBG 17th Student Faculty Conference "Fellowship of the Mind" 2023

Saturday, 22 April 2023 - Saturday, 22 April 2023

AUBG

Book of Abstracts

Contents

The role of the ‘shevitsi’ in the Bulgarian culture. The meaning behind the traditional folk embroidery in Bulgaria.	1
A Consideration of The New Spectre, Namely The Multi-modal Language Models, That is Haunting The Balkans and How Such Applications Can be Exploited by Modern Businesses	1
Gastronomic Phraseology in the Sociolinguistic Setting – A Comparison Between French and Bulgarian Idioms	2
Witchcraft Beliefs in Ghana - The Destructive Effect Of Violence and Stigmatization . . .	3
The Ethical Implications of Using AI to Evaluate Video Interviews	3
Albania: The Lunacy of Bunkers during the Cold War	4
An analysis of the Russian fact-checking Telegram channel “War on Fakes”	5
Cinderella - A tale of two tales	5
Analysis of Disruptive Innovation in Space Technology	5
Set-theoretic Solutions of the Yang-Baxter Equation and their Quadratic Algebras	6
Building a personal finance desktop application	6
Exploring the factors underlying the gender gap in consumption of sustainable products in Bulgaria: How do we engage male consumers in sustainable consumption?	7
Dimitar Blagoev’s Memorial: Political Symbol or Historical Tribute?	7
Privacy-Preserving Fuzzy Search for Encrypted Documents	8
Recommender System Hyper-parameter Tuning Using the Bio-inspired Firefly Metaheuristic Algorithm	9
Attitudes and decision making in the second-hand clothing category in Bulgaria	9
Farmico - Farming Education	10
The Risk of Foreign Currency Mortgage Loans: The Case of Poland	11
Controversial Monuments in Italy during the Fascism Period	11

Econometric Analysis of Non-Performing Loans in the Emerging Europe: A Panel VAR Approach	12
Why Do Global Banks Carry Less Liquid Loan Portfolio?	13
Lenin and Dimitrov: Another falsification or true event that happened in the past?	13
”Uncovering Unknown Monuments: Reflections on History”	13
Recommendation Algorithms for a Food Delivery App: Implementation and Challenges	14
Disputed monument of Alexander the Great	15
Entertainment as a Source of Soft Power: a Case Study of South Korean Soft Power	15
Universities in support of social entrepreneurship	16
Fake memory	17
Introduction to Fourier Analysis	18
Dissemination of CBS in Low- and Middle-Income Countries	18
”The ”Movement” Monument - The Untold Story”	19
Entrepreneurial Training, Policies and Ecosystem Needs Beyond New Product Development: A Qualitative Study Based on Insights from the Local Ecosystem Participants in Blagoevgrad Region	19

Modern Languages and Arts / 1**The role of the 'shevitsi' in the Bulgarian culture. The meaning behind the traditional folk embroidery in Bulgaria.****Author:** Desislava Veneva^{None}**Corresponding Author:** dpv200@aubg.edu**Abstract**

Bulgarian embroidery is one of the smallest, yet one of the most meaningful, cultural symbols that could be observed in the country. This research paper aims to prove that the Bulgarian shevitsa presents the strong beliefs in the sacred powers of God, how much the Bulgarians value the role of the family, fertility of the women, and the strictly defined social norms among the genders. In order to achieve this goal, the paper first will look into the history of the shevitsi, starting from the ancient times, and how they have been later implemented in the clothes of the Bulgarian ancestors. In addition, the paper is examining the different functions the traditional embroideries have depending on the place they occupy on the garment, their color, form, as well as who wears it. With the purpose of being as clear as possible, the aforementioned characteristics of the embroidery are observed in a specific example – a shevitsa called "The Vine". In conclusion, the paper is showing what meaning the shevitsa has for the Bulgarian nation, what values, beliefs, and worldviews does it carry, and lastly, but not the least, why is it considered as one of the most meaningful cultural symbols for Bulgarians.

Title:**Business 1 / 2****A Consideration of The New Spectre, Namely The Multi-modal Language Models, That is Haunting The Balkans and How Such Applications Can be Exploited by Modern Businesses****Author:** Timothy Cleary¹**Co-author:** Maria Hristova¹¹ AUBG**Corresponding Authors:** mbh220@aubg.edu, tcleary@aubg.edu

Current computer users of every type have suddenly become imbued with a significant range of powerful software applications, the nature of which enables users to access "Chat" type interfaces providing creative responses and answers to a whole range of queries and tasks. These responses include a range of diverse solutions which includes various outcomes such as focussed reports, computer code, specific advice and mathematical solutions to mention a few. Such applications, which invariably fall under the moniker of Artificial Intelligence (AI), appear to have arrived with a certain panache in the business environment of the 2020s. It would also appear that such applications cannot be ignored. The reality is, the emergence of useful, user-friendly, cost-effective programs such as the multi-modal large language model ChatGPT and other similar offerings are generating shockwaves in the world of work.

Whilst some observers have expressed a certain reservation as to the quality of the output of some of these applications, the overall feedback is that the said outputs of such applications is, overall, simply astounding. Needless to say the sudden arrival of these applications and their subsequent impact has caused a certain storm. Professions and business of every type to are having to re-consider their business models and their associated way of doing things. Such upheaval has its own consequences and this has in turn generated a certain degree of apprehension. The reality of such apprehension and the subsequent turmoil that has occurred has even lead to calls for a halt on the further development of these intelligent language models by leading industrial figures. Furthermore, the use of these

applications have even been banned at the national level as the applications have been deemed to have privacy implications the ramifications of which have yet to be determined.

However, despite such commotion it is suggested that it is possible to distil certain strategies wherein the users of such applications such as ChatGPT might be able to maximise the benefits of their deployment. It is further argued that the desire to reap such benefits is none so more than in the Balkans where, as with other parts of Europe, business is seeking not so much to avoid or shun such technology but to cognise the new paradigm wherein such technology may be harnessed to achieve critical goals.

To this end, it is suggested that there is a set of appropriate techniques wherein business users can employ certain strategies to achieve such an outcome. The purpose of this paper therefore is to collect and consider some of those various techniques which might be applied by businesses in the Balkans when using AI type applications such as the multi-modal large language model ChatGPT.

Key Words: Balkans, ChatGPT, multi-modal, AI

Title:

A Consideration of The New Spectre, Namely The Multi-modal Language Models, That is Haunting The Balkans and How Such Applications Can be Exploited by Modern Businesses

Modern Languages and Arts / 3

Gastronomic Phraseology in the Sociolinguistic Setting – A Comparison Between French and Bulgarian Idioms

Author: Nadezhda Dimitrova¹

¹ *American University in Bulgaria*

Corresponding Author: nms190@aubg.edu

In order to have good communication, people learning a new language are faced with the challenge of looking beneath the literal meaning of the words. Every language consists of naturally occurring phrases that native speakers usually do not notice while speaking or when writing. With the development of a language throughout the years, the forming of certain phraseological units is inevitable. Native speakers become used to the combinations of words and they use them often without thinking of the literal meaning. However, when a person is learning a new language, they often find it difficult to understand these modes of expression.

This research observes the phraseology related to the specialised field of gastronomy and the sociolinguistic reasoning behind it. It concerns the role of social factors in the formation of phraseological units. According to W. Labov, sociolinguistics is "the study of language in a social context" which is how this study discusses the topic (Labov, 1975). The similarities and differences described are based on formulations in the French and Bulgarian languages, their literal and equivalent translation, and their etymology. Both Frenchmen and Bulgarians are famous for their cuisine and the two countries each have their specific products. With time the wide usage of those products has resulted in an immense number of gastronomic phraseological units which are now deeply rooted in everyday speech, writing, television, and even academia. On a cross-cultural level, the idioms can differ greatly.

The study also suggests several examples and explains them by working on describing their literal translation from one language to the other, as well as showing equivalents if such exist in the two languages. The etymology and the forming of the phrases will also be observed as a way to place them in the sociolinguistic setting. We demonstrate a number of texts, that the public can access freely, in which phraseologies are used and show their role in the formation of the meaning.

Furthermore, the text also explains the importance of knowing and recognizing the phraseology of a language when studying it to better understand the methodology of the language.

Keywords: phraseology, phraseological unit, sociolinguistics, French, Bulgarian, etymology, literal translation, cross-cultural level

Title:

Modern Languages and Arts / 4

Witchcraft Beliefs in Ghana - The Destructive Effect Of Violence and Stigmatization

Author: Monika Gocevska^{None}

Corresponding Author: mng210@aubg.edu

The concept of witchcraft is a taboo topic that many think is only an issue of the past. However, nowadays in many African societies, the belief of witchcraft is a predominant phenomenon which affects vulnerable women and children. Ghanaian strong cultural beliefs of witchcraft puts into question basic human rights, causing women to be subject of abuse, persecution, marginalization and discrimination. The strong cultural beliefs and stereotypes associated with women and witchcraft are backed up by the lack of education and the strong patriarchal society. My research aims to understand the concept of witchcraft from the perspective of Ghanaian society, in terms of historical beliefs, stereotypes and actual real-life experiences of women who have been subject to witchcraft accusations. With this in mind, we come to a closer understanding of how influential are Ghanaian cultural beliefs and stereotypes in relation to women and witchcraft. Women who do not follow the general norms of Ghanaian society are put in a vulnerable and dangerous position, where they can be accused of witchcraft for the most basic reasons, such as: appearing in someone's dream, a person's death or illness. To what extent should cultural beliefs be followed, when it comes to affect basic human rights and morality?

Title:

Computer Science 2 / 5

The Ethical Implications of Using AI to Evaluate Video Interviews

Author: Kameliya Nikolova¹

¹ Student

Corresponding Author: kan190@aubg.edu

The use of artificial intelligence (AI) in hiring has become increasingly common and it has introduced new challenges. In addition to being frequently opaque, AI also lacks impact assessments and defined accountability distribution. As a result, there is an increased risk that interviews evaluated by AI will reinforce bias and discrimination, particularly when it comes to people with disabilities who exhibit atypical affect. In the hiring reality of AI-analyzed video interviews, these candidates are likely to be rated based on their limitations and denied the chance to highlight their skills. And while a vast body of existing literature has extensively studied issues of race and gender in AI Ethics, the ethical frameworks dealing with disability and AI remain underdeveloped.

This paper aims to bridge this gap by conducting an ethical analysis of the intersection between AI-evaluated video interviews and individuals with atypical affect. In particular, it will use a Rawlsian perspective to examine the possible risks posed to those with Autism Spectrum Disorder (ASD). It will reiterate the problem using the difference principle and the comparison of natural versus social goods as well as the medical versus social perspectives on disability. Also, it will explore the

capabilities of individuals with ASD beyond their social difficulties and discuss existing programs for neurodiverse hiring and their goals.

Ultimately, I argue that, in light of the hurdles individuals with autism face, businesses have an obligation to design systems and develop auditing frameworks for AI that take into account the unique characteristics and strengths of such individuals. I propose a new definition of universal design that not only accommodates individuals with ASD but also makes AI-powered hiring a lot more fair and potentially more accurate. Additionally, I draw conclusions helpful for policymakers, researchers, and businesses interested in creating an environment suitable for both neurodiverse and neurotypical employees.

Keywords: ASD, AI in hiring, AI Ethics, AI-analyzed video interviews, Neurodiversity, Rawls, Fairness

Title:

The Ethical Implications of Using AI to Evaluate Video Interviews

Monuments as Instruments for Construction of the Past / 6

Albania: The Lunacy of Bunkers during the Cold War

Author: Gerhard Mema¹

¹ *Student*

Corresponding Author: gerimema111@gmail.com

Title: Albanian Paranoia – Bunkers during the Cold War

The subject of the short documentary pertains to Enver Hoxha's 45-year dictatorship in Albania (1944-1985) and his project of "bunkerization" of the country.

During the 1960's and 1970's, Albania broke up the relationships with Soviet Union and China. This situation turned Albania and its people to be cut off from the outside world under his oppressive Stalinist type regime. To defend both military and civilians from attack by foreign "capitalist and imperialistic" forces, tens of thousands of reinforced concrete bunkers were erected across the country.

The project of "bunkerization", this massive military-industrial project, envisioned a bunker for each and every Albanian, strategically placed to provide quick shelter. One bunker was built for every four people in Albania by Hoxha and his military engineer Josif Zagali, who ultimately constructed over 700,000 bunkers over the whole country. They were constructed everywhere, including beaches, mountains, vineyards, pastures, villages, towns, even on the perfectly manicured lawns of Albania's best hotel.

After the transition to democracy in Albania, some of the bunkers were destroyed or transformed into houses, businesses or other uses. Also, designers are drawn to the potential for creative twists that lead to unexpected "revitalization" of the bunkers, such as turning them into hostels, hotel rooms, pubs, and restaurants.

The 700 000 bunkers failed to serve their intended goal of defense or even deterrence, and as a result, they have proven to be neither effective nor useful.

In conclusion, the case of the Albanian bunkers, which is one of the largest "defense" projects in European and Balkans during the Cold War stands out as an unique case in the Eastern block.

Title:

Albania: The Lunacy of Bunkers during the Cold War

Politics and European Studies / 7**An analysis of the Russian fact-checking Telegram channel "War on Fakes"****Author:** Vlada Kolesnikova^{None}**Corresponding Author:** vnk190@aubg.edu

This study focuses on Russian fact-checking Telegram Channel "War on Fakes". This fact-checking effort has appeared in the context of Russian invasion in Ukraine in 2022. War on Fakes sees its goal in providing impartial information in connection to situation in Ukraine and in the light of information attacks on Russia. The initial goal of this paper is to place War on Fakes in the context of the established fact-checking practices through evaluating fact-checks posted on its Telegram channel. The results of this part of the study indicate that War on Fakes is adopting the fact-checking practices used by the other agencies. These results highlighted the need to consider the use of deceptive elements by the Telegram channel, which were evident over the course of analysis. The second part of the study explores the use of deceptive practices by War on Fake as it mimics fact-checking steps used by the established agencies. Overall, the results of the study bring to the surface a previously overlooked idea in the academic literature—the idea of false fact-checking.

Title:**Modern Languages and Arts / 8****Cinderella - A tale of two tales****Author:** Neda Aleksov^{None}**Corresponding Author:** nna210@aubg.edu

A presentation which focuses on comparing two versions of the famous fairytale Cinderella – one by the Grimm Brothers (German writers and linguists) and the other by Vuk Karadžić (Serbian writer and linguist). The origins of Cinderella are a topic of controversy because people like to debate the original publisher. However, this is not the focus of the presentation, instead, I will emphasize the similarities and differences between the German and Serbian versions. Both stories explore the fate of a young girl and how she coped with the loss of her mother, unfortunate family circumstances, and finding love in the end. The differences in the storylines are mainly culturally driven. Influences such as religion, social status, and the significance of folk beliefs are prominent in both fairytales.

Title:**Business 1 / 9****Analysis of Disruptive Innovation in Space Technology****Author:** Kristina Myftaraga^{None}**Corresponding Author:** knm181@aubg.edu

The shift toward commercialization of the space sector has altered traditional space exploration and development. Technological developments that disrupt the industry are responsible for this transformation. This paper will define and analyze the theory of *Disruptive Innovation in Space Technology*. The author explores this concept by analyzing the general public's and industry professionals' contrasting viewpoints toward the commercialization of the space industry. Through this analysis and literary reviews, key drivers and trends of the disruption in the space industry will be determined,

benefits and challenges will be listed, and the competitive landscape of the market be defined. However, the outcomes will impact governments, economies, and technologies.

Title:

Analysis of Disruptive Innovation in Space Technology

Mathematics / 10

Set-theoretic Solutions of the Yang-Baxter Equation and their Quadratic Algebras

Author: Simona Karageorgieva^{None}

Corresponding Author: snk180@aubg.edu

The famous now Yang-Baxter equation (YBE) was first introduced in the field of statistical mechanics in the late 1960s. It became a fundamental equation in Mathematical Physics, more precisely in the theory of Quantum groups. The definition of the Yang-Baxter equation is the following:

Let V be a vector space. A linear automorphism $R : V \otimes V \rightarrow V \otimes V$ is a solution to the Yang-Baxter equation if the equality $R_{12}R_{23}R_{12} = R_{23}R_{12}R_{23}$, holds in $V \otimes V \otimes V$, where $R_{12} = R \otimes id$, $R_{23} = id \otimes R$.

Finding all solutions of the Yang-Baxter equation is a difficult task far from its final resolution even for small dimensional vector spaces. In 1991 the Fields medalist Drinfeld proposed to study set-theoretical solutions of the Yang-Baxter equation. The first influential works devoted to set-theoretical solutions were the papers of Gateva-Ivanova and Van den Bergh in 1998, and Etingof, Schedler, and Soloviev in 1999. These two seminal works gave the start of a very active area of research. Now, every year hundreds of papers are published on this topic. Every set-theoretic solution defines a general solution of YBE. More importantly, the set-theoretic solutions of YBE lead to their own algebraic and combinatorial structures (groups, semigroups, quadratic algebras, and braces) with remarkable properties.

This senior thesis is a survey based on several papers of Tatiana Gateva-Ivanova. We give a brief introduction to the theory of noncommutative Groebner bases, Binomial skew polynomial rings, the Yang-Baxter equation and their quadratic algebras, Veronese subalgebras of Yang-Baxter algebras. Our original contribution is an application of recent results of Gateva-Ivanova on Veronese subalgebras and Veronese morphisms for a class of Yang-Baxter algebras. We find explicit presentations of the 3-Veronese subalgebras $A^{(3)}$ of two concrete Yang-Baxter algebras A in terms of generators and relations.

In this talk, we shall give a concise presentation of the basic theory of noncommutative Groebner bases, the Yang-Baxter equation, and Binomial skew polynomial rings. We shall focus our attention on the so-called square free solutions of YBE and their quadratic algebras. We shall illustrate the theory with two examples which give explicit presentations of Veronese subalgebras of Yang-Baxter algebras in terms of generators and relations.

This work is supervised by Tatiana Gateva-Ivanova.

Title:

Computer Science 1 / 11

Building a personal finance desktop application

Author: Hermes Çati^{None}

Corresponding Author: hnc190@aubg.edu

The project aims to develop a personal finance desktop application that provides users with a solu-

tion for managing expenses and financial assets through a user-friendly interface. The application assists users in keeping track of their expenses by providing a visual depiction of their expenditures and tracking the daily performance of their cryptocurrency assets. In addition to that, Expensier makes use of machine learning technologies, using algorithms such as Linear Regression and K-Nearest Neighbors to estimate future expenses based on historical spending patterns. As a result, consumers may manage their budgets more effectively and make better-educated financial decisions. Expensier is a WPF application developed with .NET and C#. I believe this project contributes to the field of Computer Science by showcasing the application's full-stack development process, which gives insights into the adoption of current software development practices. The project also provides a practical example of how machine learning techniques may be used in finance management applications.

Title:

Business 1 / 13

Exploring the factors underlying the gender gap in consumption of sustainable products in Bulgaria: How do we engage male consumers in sustainable consumption?

Author: Nicole Kishkin¹

¹ *Student*

Corresponding Author: ntk190@aubg.edu

The United Nations developed a list of seventeen Sustainable Development Goals in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. Of these seventeen goals, the twelfth outlines the importance of responsible consumption and production. Unsustainable patterns of consumption and production have been cited as root causes of the triple planetary crises of climate change, biodiversity loss, and pollution which, combined with the resulting degradation of the environment, pose a threat to the well-being of the entire global population. Although recent global trends have shown that notable growing consumer demand for sustainable products has led to an increase in business engagement with sustainable production and other ESG practices, this trend does not affect post-communist nations (like Bulgaria) at the same rate. Furthermore, global research has shown that many other factors have an effect on one's propensity to consume sustainably, including income, education, social influence, and, most notably, gender. Although a vast body of existing literature notes that some consumers are less likely to engage in sustainable consumption, with men (vs. women) being more resistant, this so-called eco gender gap in sustainable consumption behaviors is noticeably under-researched in post-communist countries, including Bulgaria.

This research begins by outlining previous literature on the gender differences in sustainable consumption behaviors and discusses how these behaviors often align with social roles for women and men (Altruism, Masculinity, and Sustainability Self Efficacy). The research then examines the degree to which these aspects inform the underlying motivations and influences on sustainable consumption behaviors in Bulgaria, with a focus on the male sustainable consumption perspective. Finally, the research concludes with an examination of how an understanding of these processes can promote solutions to the eco-gender gap, by informing a list of effective marketing tactics which promote sustainable consumption in men.

Title:

Exploring the factors underlying the gender gap in consumption of sustainable products in Bulgaria: How do we engage male consumers in sustainable consumption?

Monuments as Instruments for Construction of the Past / 14**Dimitar Blagoev's Memorial: Political Symbol or Historical Tribute?****Author:** Nikolay Pachev¹¹ *Student at AUBG***Corresponding Author:** nvp190@aubg.edu

My short video presentation provides an insightful review of the monument dedicated to Dimitar Blagoev in Blagoevgrad, Bulgaria. Dimitar Blagoev is famous for his active participation in the establishment of the Bulgarian Communist Party in the 20th century. The town of Blagoevgrad is named after him, therefore his monument is located on the central square, which is called Georgi Izmirliiev, just next to the two universities, the Drama Theater, and the local municipality. I have examined the monument's location and its significance in the context of the city's name. I also have conveyed several voice interviews onsite to review the general knowledge of the monument of people who passed by the monument on a random weekday. The presentation delves into the historical background of Blagoev and his actions for the Bulgarian socialist movement, shedding light on the monument's potential political symbolism. I analyze whether the monument serves as a political tool in the present-day context, given the legacy associated with Blagoev. The presentation offers critical insights into the multifaceted significance of the monument in Blagoevgrad. It further explores if the monument serves as a political symbol or a historical tribute. Finally, the video presents a current affair of a person who had decided to express their free will and protest and had painted the monument several years ago. So, the video will also present his opinion and experiences that followed, including being imprisoned for a whole day. Later, the story continued for several years in numerous judicial procedures. Finally, more than 8 years later the Strasburg court ruled in favor of the protestor, and the country should pay some damages. I feel this story is controversial and deserves attention not only from AUBG society but from the local community, as well. I also have indented to provide a thought-provoking analysis of the monument's role in shaping public memory, historical background, and political narratives in the local society.

Title:**Computer Science 1 / 15****Privacy-Preserving Fuzzy Search for Encrypted Documents****Author:** Gabriela Georgieva^{None}**Corresponding Author:** ggg190@aubg.edu

As the volume of sensitive data stored in the cloud continues to grow exponentially, ensuring the privacy and security of this information has become increasingly critical. However, conventional encryption techniques often hinder efficient search operations on encrypted data. Additionally, the ability to perform fuzzy searches is crucial in handling real-world data containing typographical errors or variations in word forms. To address these challenges, a searchable encryption library in Java is presented that enables secure and efficient text search over encrypted data.

The library is designed to provide a comprehensive and efficient solution for privacy-preserving and flexible information retrieval. It achieves this by integrating three main features: the Advanced Encryption Standard (AES) algorithm for robust data encryption, an n-gram based inverted index structure, and the BM25 ranking algorithm enhanced with proximity scoring.

The AES algorithm is widely regarded as one of the most secure encryption techniques available. It provides a high level of confidentiality and ensures that data stored in the cloud is safe from unauthorized access or tampering. This feature is particularly important for sensitive data such as financial or personal information.

The n-gram based inverted index structure is a flexible and powerful technique for mapping terms to document IDs and term positions. It allows for fuzzy search capabilities which means that users can perform searches using keywords that may not exactly match the exact phrasing in the documents, yet still receive accurate and relevant results. Additionally, the inverted index structure enables quick and precise search operations, ensuring efficient and effective information retrieval.

The BM25 ranking algorithm is a widely used algorithm for measuring the relevance of search results. By incorporating proximity scoring, the library is able to further refine the relevance of the search results. Proximity scoring considers not only the frequency of a search term in a document, but also the proximity of the term to other search terms. This approach provides more accurate and relevant search results, enhancing the library's search capabilities.

By incorporating all of these characteristics, a searchable encryption library was created to meet the increasing demand for private and adaptable information retrieval across diverse domains, providing a robust solution for information security and privacy researchers and developers.

Title:

Computer Science 1 / 16

Recommender System Hyper-parameter Tuning Using the Bio-inspired Firefly Metaheuristic Algorithm

Author: Deni Mastori¹

¹ *American University in Bulgaria*

Corresponding Author: dnm201@aubg.edu

Recommender systems are ubiquitous in data science, constructed to produce meaningful predictions from an abundance of loosely related information. To improve their effectiveness, modern bio-inspired algorithm have been combined with existing mathematics; yet, an avenue that has been sparsely explored is the applicability of biological optimization in hyper-parameter tuning. Through this tuning, prediction error could be minimized without modifying the existing logic. A system using singular value decomposition (SVD) to generate recommendations was chosen for the experiment. Four specific hyper-parameters used by the system were optimized. To conduct the tuning, the Firefly metaheuristic algorithm was used, with the attractiveness of each firefly being defined as the inverse of the root mean squared error (RMSE) for each model trained. The results indicated that the tuned model had a lower RMSE compared to the untuned variant. Another tuning using prediction hit rate displayed even more promising results.

Keywords: Recommender systems, collaborative filtering, bio-inspired algorithms, metaheuristic optimization, firefly algorithm, machine learning

Title:

Recommender System Hyper-parameter Tuning Using the Bio-inspired Firefly Metaheuristic Algorithm

Business 3 / 17

Attitudes and decision making in the second-hand clothing category in Bulgaria

Author: Dimitar Donev^{None}

Corresponding Author: dbd190@aubg.edu

The fashion industry generates substantial economic activity and employs over 1.7 million people in Europe (Nikolina, 2019). From a sustainability perspective its importance is relevant as up to 10% of the EU's environmental impact from consumption happens due to the fashion industry (Nikolina, 2019). Style, price, culture, personal attitudes towards sustainability, and other factors are contributing toward a rapid growth in the European second-hand apparel market (Woo & Kim, 2020).

The paper explores the second-hand clothing category and consumer attitudes through the lens of the Bulgarian current and prospective buyers. The study contains an overview of three established second-hand outlets, and a newly minted online platform - Unboxd. An overview of the selected businesses features their main product offering attributes, portfolio, and marketing activities.

An anonymous, voluntary, online quantitative survey was conducted in Bulgaria with a total of 300 respondents, of which 220 completed the survey to its entirety. The respondent split is 65% female and 35% male. The most common age group was between 18 and 26 years of age with 46%. 83% of the respondents have purchased clothing online and over 72% have already bought-second hand clothes. The research captures the attitudes of Bulgarians towards the second-hand (2H) fashion industry and its connection with sustainability. It tests three hypotheses about (1) which aspects Bulgarian consumers find to be most essential for 2H clothing, (2) attitudes for buying 2H clothes, and (3) most trustworthy message sources. It further tests the motivation of Bulgarian consumers to purchase 2H clothes, based on aspects, which can be linked to Maslow's hierarchy of needs.

52% of the participants considered the lower prices of high-quality clothing as a very relevant factor for buying 2H clothes. In contrast, only 15% found the environmental benefit of saving up to 3 liters of water to be a highly compelling reason for purchasing 2H apparel. "Respected friends" are the most trusted sources for 2H clothing with 56% of answers being "I trust the source" and 21% are "I fully trust the source". On the other end of the spectrum, only 1% of respondents entirely trust models and less than 2% answered "I fully trust the source" for company representatives.

The research concludes that affordability is still one of the most important aspects for Bulgarians purchasing 2H clothing, that the experiential hierarchy of attitude is most commonly applied for clothing. Referent power is claimed as one of the most compelling message sources for apparel. Although the message related to self-actualization was the most well-received, no definitive category of Maslow's hierarchy of needs was identified as a strong motivator for purchasing second-hand clothes.

Keywords: sustainable fashion, second hand clothing, consumer attitudes towards second-hand clothing in Bulgaria, fashion industry in Bulgaria, online clothing retailing, motivation for purchasing second hand clothing, attitude hierarchy in second hand clothing

Title:

Business 3 / 18

Farmico - Farming Education

Authors: Kostadin Kazakov¹; Petar Nedev¹

¹ AUBG

Corresponding Author: ppn190@aubg.edu

The project we would like to present to you was created during the OSUN Social Entrepreneurship international program. The people behind it are Petar Nedev, Kostadin Kazakov and Milen Plevneliev, students at the American University in Bulgaria. It is called Farmico and it aims to educate children about agriculture and increase their knowledge and understanding of where our food comes from. Farmico's main goal is to change the perception regarding agriculture of the youngest generations in Bulgaria and give them insights on the path of the products that come to their table. This will be done through a camp, during which children will be mentored and work in agricultural fields, which will allow them to understand how vegetables, fruits and cereals are grown and how important it is for them to be as organic as possible. Throughout the duration of the OSUN course, our team has perfected the initial plan of the project, in order to make it available for launching. We have achieved

this though several guided builders, the purpose of which were to help us prepare our project. These include a prototyping model, target and market evaluation, competitive landscape evaluation, Go-to-Market strategy, financial models, etc. In December 2022, the project has reached its final stages, and we were invited to participate in a global social entrepreneurship and sustainability competition called Disrupt To Sustain. During it we pitched the idea of Farmico in front of judges and stakeholders, eventually reaching fourth place in our group. During The Fellowship of the Mind Conference, we will present to you our project and dive further into the details about it.

Title:

Business 2 / 19

The Risk of Foreign Currency Mortgage Loans: The Case of Poland

Author: Lyubomira Aleksova^{None}

Corresponding Author: lyubomira.aleksova@gmail.com

Over the period between 2008 and 2021, the Polish banking industry has experienced significant growth, as well as changes in its structure and regulation. Most notably, Poland was dubbed a miracle country for remaining stable during the global financial crisis due to a multitude of country-specific factors. The consolidation of the sector has been one of the biggest transformations in the Polish banking industry. Many smaller banks merged with or were acquired by larger banks in the years after the financial crisis, yielding a smaller number of larger, more stable banks. The sector has also been impacted by the adoption of new standards and regulations, both in Poland and at the level of the European Union. However, the Polish banks suffered a significant mortgage crisis in 2015 – an aftermath of the Swiss franc-denominated borrowing in the first 10 years of the century, and especially after the 2008 crisis. Many Polish borrowers chose mortgages in Swiss Francs at the time because the interest rates were lower than those charged by Polish banks for mortgages in Polish Zloty. However, these borrowers saw their installments spike dramatically with the Swiss franc almost doubling in value against the Polish currency (złoty), since the 2008 financial crisis and in particular after the Swiss National Bank allowed the franc to float against the euro since 2015. The European Court of Justice (ECJ) ruled in favor of Polish borrowers in 2019, meaning that borrowers could ask Polish courts to convert their loans into local currency and thousands have done so. Banks suffered immense losses and two banks declared bankruptcy. Given the relative stability of the Polish banking sector in general, I aim to examine the risk exposure that threatened the financial stability in Poland and what can be done or had not been done to mitigate that risk. The methods to be used include regression analysis, Value-at-Risk model, and Monte-Carlo simulation. Lastly, I would like to draw lessons from the Polish experience for other economies to mitigate that risk.

Keywords: Poland, mortgage crisis, foreign exchange risk, credit risk

Title:

The Risk of Foreign Currency Mortgage Loans: The Case of Poland

Monuments as Instruments for Construction of the Past / 20

Controversial Monuments in Italy during the Fascism Period

Author: Ioana Laura Raicu^{None}

Corresponding Author: lauraraicu13@gmail.com

The northern Italian town of Bolzano in the western Dolomites is known for breathtaking natural landscapes as well as for its medieval city centre, gothic cathedral, and world-famous mummy, Ötzi the Iceman, which is on display at the local archaeological museum. At the same time, Bolzano's more recent history casts a shadow over the town. The legacy of fascism looms large in the form of Ventennio fascist-era monuments such as the Victory Monument, a massive triumphal arch commissioned by the Italian dictator Benito Mussolini and located in Bolzano's Victory Square, and the Mussolini relief on the façade of the former Fascist Party headquarters (now a tax office) at Court-house Square, which depicts the duce riding a horse with his arm raised high in the Fascist salute. What should happen to the relics and ruins, monuments and statues of totalitarian and authoritarian regimes? Should we preserve shrines to war and dictatorship? The fate of such structures is still a hotly contested issue in Europe and elsewhere, and the answers remain elusive. The stories of the Victory Monument and the duce relief exemplify the complexities posed by the legacies of fascism. In South Tyrol, where monuments hold starkly different meanings for two distinct parts of the population, dealing with Fascist monuments continues to be particularly tricky.

Title:

Economics / 21

Econometric Analysis of Non-Performing Loans in the Emerging Europe: A Panel VAR Approach

Author: Lyubomira Aleksova^{None}

Corresponding Author: lyubomira.aleksova@gmail.com

According to the growing number of researchers, NPLs as an indicator of financial vulnerability finds its roots in both economy-level factors, as well as the specifics of each country's banking system, in addition to prudential regulations, and the quality of institutions and risk management on a national and bank-specific level. The deteriorating quality of loan portfolios can be the result of the slowdown in economic activity and the following inertia in credit and bank profitability. In the aftermath of the crisis periods, Emerging Europe's slow NPL problem resolution could overflow and cause a permanent state of stagnation and become an emerging problem at any point of crisis in the future. Studying the specific determinants and all related effects to NPLs is a valuable insight that can help understand the pitfalls and vulnerabilities of financial systems and help bring stability and growth to the economy and the financial sector by strengthening regulation and implementing new policies. This work examines the dynamics between non-performing loans and their macroeconomic and banking system-specific determinants in selected developing European countries over the period 2000Q1 to 2021Q4. The selected variables determinants include quarterly proxies for economic growth and stability, as well as banking system size, capital adequacy, lending, profitability, and efficiency. The panel of developing countries includes Bulgaria, Czech Republic, Hungary, Poland, Romania. The methods used in examining the dynamics include static (Fixed Effects) and dynamic (GMM) panel models, and, finally, a Panel VAR model, including Granger causality tests, variance decomposition, and impulse response functions. The novelty in this paper is the focus on the feedback effect between the determinants and the levels of non-performing loans, and the inclusion of the latest crisis resulting of the COVID-19 pandemic. According to the most recent research, a panel vector autoregression (VAR) approach is used to conduct the analysis. This model enables all variables in the system to interact, which allows accounting for all potential interactions between the variables at once. The methodology also enables the analysis of how NPLs react to shocks in the respective macroeconomic environment and banking industry, as well as the feedback effect of NPLs on them.

Keywords: non-performing loans, Emerging Europe, VAR, panel data

Title:

Econometric Analysis of Non-Performing Loans in the Emerging Europe: A Panel VAR Approach

Business 2 / 22

Why Do Global Banks Carry Less Liquid Loan Portfolio?

Authors: Ali Termos^{None}; Darius Martin¹

¹ *Western Washington University*

Corresponding Author: atermos@aubg.edu

ABSTRACT

Recent banking literature identifies two distinct sources of liquidity that banks can rely on in response to funding shocks: liquid funds on the balance sheet and securitizable loans. Using the banking data in the U.S. between 1980 and 2007, we examine how domestic banks and global banks (banks with access to international capital) differ in tapping each source of liquidity. First, we find that global banks carry a less securitizable loan portfolio than their domestic counterparts. However, liquid securities and securitizable loans are more substitutable for global than for domestic banks.

Keywords: Securitization; Monetary Policy Transmission; Bank Lending Channel; Liquidity

JEL Classification: E51,l E52, E58, G21, G28.

Title:

Monuments as Instruments for Construction of the Past / 23

Lenin and Dimitrov: Another falsification or true event that happened in the past?

Author: Ivana Bangeeva¹

¹ *Presenter*

Corresponding Author: ipb210@aubg.edu

The monument of Lenin and Georgi Dimitrov is one of the landmarks that are left from the communist regime. It is situated in Banya, which is close to Razlog. The monument was built in celebration of the 85th birthday of Georgi Dimitrov. The emigrant Kostadin Kalchov sponsored the creation of the monument with 36 000 USD, even though his wish was to be created something tremendously bigger than today's monument. Moreover, he wanted to create a community centre, in which there would be 12 meters long statues of Georgi Dimitrov and Lenin. Those statues would have been the biggest communistic monuments on the Balkans. On the monument itself there is graffiti that actively demonstrate people's behaviour, which is strongly suggesting that people should open their eyes about the crimes done by the Communist regime. In addition to the monument, there is one next to it- a massive marble stone, which on it has engraved the poem of Geo Milev- September. The poem is not written during the regime, but is used as propaganda, since it has a lot of motives supporting the regime itself. The poem is suggesting ideas of Bulgarian people struggling for justice and freedom, shaping the whole nationalistic inducement. In the conducted research, there are different generations that blast into one another's mindsets. Some people seem to be ignorant about the past, and some seem to like the regime. What was actually the question behind the monument whether the two leaders had met, or it is another tool used for shaping people's mind. Therefore, the issue is: Are people living on false beliefs or it is actually true and history is not manipulated? Or are people living on those false belief because they are told to do so or they like them?

Title:

Monuments as Instruments for Construction of the Past / 24**"Uncovering Unknown Monuments: Reflections on History"****Author:** Georgi Musev¹¹ *AUBG student***Corresponding Author:** gtm200@aubg.edu

I am taking Topics in European History: Constructions and Instrumentalization this semester with Professor Evelin Kelbecheva. In a nutshell, what I will present at AUBG's Fellowship of the Mind Conference 2023 is a 10 min video regarding a monument of my choice with a short interview. This assignment is created for our classes to show what we have learned in this class, Topics in European History. Furthermore, this video will present the main points taken from this class - Major actors in the creation of public memory:

- the governments and political elites who desire to establish a worldview perspective showing the successful mastering of past events

- the intention is to develop a triumphant continuity of events that can be officially sanctioned through government agencies.

- representatives of minorities, usually ethnic, religious/gendered, desiring political recognition of or compensation for past injustices or traumas or demanding a proper place in the national narrative about the past. The new versions of the past also form new ways to engage citizens. Non-government organizations, often representing suppressed or persecuted groups, also participate in the demand for their historical narratives and new forms of commemoration, even their museums and school-books, and are occasionally financed and, in that way, controlled by the state.

And another point is the widespread phenomenon of government commemorative politics that includes the creation of historical commissions and institutions and legislating politicized interpretations of historical events.

- establishing new museums of national trauma

- getting into international conflicts over interpretations of history

- sponsoring history textbooks for schools

- erecting statues of national heroes

- instituting new days of national commemoration.

Overall, this is an abstract of what I'm focusing on and what I will present at the AUBG's Fellowship of the Mind Conference 2023. The video will focus on an unknown Greek monument for many and its background.

Title:**Computer Science 2 / 25****Recommendation Algorithms for a Food Delivery App: Implementation and Challenges****Author:** Plamen Galinov^{None}**Corresponding Author:** plg190@aubg.edu

Food recommendation systems play a significant role in the food industry, helping customers make informed decisions and enhancing their overall dining experience. One of the most important components of these systems is the recommendation logic, which suggests food items based on the individual customer's preferences and previous order history. The goal of my research is to compare and choose suitable algorithms and techniques in order to help users select a restaurant and dishes in an online food delivery platform. To achieve this, I decided to focus my research on two different aspects – collaborative filtering and data mining. Collaborative filtering is a widely used technique in recommendation systems, as it can effectively capture aggregate behavior and preferences of similar users to provide personalized recommendations. One such algorithm I covered in depth is the Slope One algorithm which uses the average difference between item ratings to predict new ratings. The Slope One algorithm is a straightforward recommender system algorithm that can

be used for collaborative filtering item-item recommendations, better known as "if you like this, you may also like that." The research also covers Frequent Pattern Growth (FP-Growth), which is a scalable and effective technique for mining the entire set of frequent patterns through pattern fragment growth. FP-Growth can be used to suggest items customers may want to buy in addition to their first-choice meal. The presentation provides an overview of each algorithm and the steps involved in implementing them. It also discusses the advantages and disadvantages of each of them and provides a comparison to other similar algorithms. The results of the study show that both algorithms used in conjunction are effective in recommending food items to customers, with Slope One being appropriate for personalized recommendations and FP-Growth suitable for recommending products that are frequently purchased together. A combination of both algorithms can be the backbone of any food recommendation system. I will show a sample food ordering platform that implements the recommendation system based on my research. Overall, this presentation provides valuable insights into the use of different algorithms for food recommendation systems and offers practical guidance for businesses looking to implement such algorithms.

Title:

Monuments as Instruments for Construction of the Past / 26

Disputed monument of Alexander the Great

Author: Marko Atanasovski¹

¹ *Student*

Corresponding Author: mna191@aubg.edu

The monument of Alexander the Great is a significant monument located in the city main center of Skopje, North Macedonia. The statue includes Alexander the Great on top of a horse, which is standing on the two back feet. The monument is accompanied by his companions and soldiers and military achievements, which are placed on the bottom of the monument, which is also surrounded by a beautiful fountain. The monument is a tribute to the ancient Macedonian king, who is considered a prominent figure in world history. The monument has been a topic of controversy, due to the historical complexities surrounding Alexander the Great Legacy. The dispute about this topic also includes the naming dispute between North Macedonia and Greece. Nevertheless, the monument has become a prominent figure, famous tourist attraction, due to its location and meaning of the statue and also a symbol of Skopje's cultural heritage. The monument of Alexander the Great serves as a reminder of the city's historical connections to the ancient world and its significance in today's world history.

Title:

Politics and European Studies / 27

Entertainment as a Source of Soft Power: a Case Study of South Korean Soft Power

Author: Valeria Amaral^{None}

Corresponding Author: vda190@aubg.edu

South Korea is a relatively small country in Asia, surrounded by Russia, China, and Japan, big and imponent countries. South Korea was dominated by its neighbor Japan from 1910 to 1945. Then, after the liberation, it had a big economic growth that is an example for developing countries now; but, despite the economic achievements, the country still felt weak compared to its neighbors. South Korea does not have enough military force to compete with the three big countries, so it had to find

other sources of power.

President Kim Young Sam recognized the importance of showcasing the national culture to the world in the scenario of globalization and international economic rivalry. Therefore, in 1997, the Minister of Culture and Sports made a list with 10 cultural symbols to promote the Hallyu (Korean Wave) everywhere, and famous Korean artists are one of the items on the list.

Nowadays, entertainment- kpop, movies, dancers- are among the most important symbols of South Korean culture abroad, and it may be the country's main source of Soft Power. The widespread Korean entertainment and cultural values are known as Hallyu, and specific policies to promote it started in the late 1990s, and now we have the Hallyu 3.0, since 2015, with the main focus on K-pop artists.

Former President Moon Jae-in was in power from 2017 to 2022, and he continued to recognize Korean entertainment as valuable for the country's image. This research is analyzing his speeches and policies made throughout his mandate to see if the government intentionally uses entertainment to increase and promote Soft Power.

Keywords: Soft Power, South Korea, Entertainment, K-pop, Presidential Speeches.

Title:

Entertainment as a Source of Soft Power: a Case Study of South Korean Soft Power

Business 3 / 28

Universities in support of social entrepreneurship

Authors: Evelina Van Mensel^{None}; Nikolay A. Dentchev¹; Zornitsa Yordanova²

¹ VUB

² UNWE

Corresponding Author: evmensenl@aubg.edu

Keywords

Universities, higher education institutions, social entrepreneurship, social impact, support, project-based learning

Higher education institutions (HEIs) play an important role in driving social entrepreneurial intent (Bacq & Alt, 2018). With a growing pressure towards following their third mission, universities apply numerous strategies to create social impact (Guerrero, Urbano, & Fayolle, 2016, Sánchez-Barrioluengo & Benneworth, 2019a). Depending on their unique context and internal resources HEIs apply different mechanisms to create impact, which results in different outcomes (Benneworth, Pinheiro and Sánchez-Barrioluengo, 2016; Roncancio-Marin et al., 2022). Even though university embeddedness in support of social impact has been widely discussed (Etzkowitz and Klofsten, 2005; Bramwell and Wolfe, 2008; Guerrero, Urbano and Fayolle, 2016; Budyldina, 2018; Cunningham et al., 2019), we are still lacking understanding on the antecedents of the different approaches universities may develop in support of social entrepreneurs (Rampasso et al., 2021), especially in a context of uncertainty and limited resources (Wright, 2014; Siegel and Wright, 2015).

We therefore pose the following research questions:

RQ1: What drives universities' support to social entrepreneurs as part of their effort to create social impact?

RQ2: How do we go beyond entrepreneurial intent and extend the life of student social impact projects?

To answer these questions, we perform 42 in-depth interviews and focus groups with key stakeholders from four diverse types of universities and their surrounding ecosystem. We find supporting social entrepreneurs is not institutionalized, but rather alliances, international funding and individual initiative are key drivers of the different support mechanisms HEIs apply. Civic engagement education increases the chances of students playing an active role in diversifying these activities. In addition, this study applies quantitative research method and looks at data from 200 students from

8 countries in three consecutive years of the Global Social Entrepreneurship Practicum of the Open Society University Network. Next to the traditionally measured among students entrepreneurial intent, this study aims to identify the development of crucial 21 century skills such as critical thinking, cross-cultural collaboration, flexibility (Soland et al., 2013; Farrington, et al., 2012; Bandura, 1997; Bacigalup et al., 2016; Worldbank, 2022) and establish which type of learning experience is more likely to extend the life of student social impact projects beyond the classroom. We argue that in order to tackle environmental and social issues, students need to get out of the classroom and experience social entrepreneurship firsthand. "Since it is only when we bring to bear the best of our tools that we can solve our most wicked problems." (Earle & Leyva-de la Hiz, 2021, p.19).

References:

- Bacq, S. and Alt, E. (2018) 'Feeling capable and valued: A prosocial perspective on the link between empathy and social entrepreneurial intentions', *Journal of Business Venturing*, 33(3), pp. 333–350. doi:10.1016/j.jbusvent.2018.01.004.
- Benneworth, P., Pinheiro, R. and Sánchez-Barrioluengo, M. (2016) 'One size does not fit all! New perspectives on the university in the social knowledge economy', *Science and Public Policy*, 43(6), pp. 731–735. doi:10.1093/scipol/scw018.
- Bramwell, A. and Wolfe, D.A. (2008) 'Universities and regional economic development: The entrepreneurial University of Waterloo', *Research Policy*, 37(8), pp. 1175–1187. doi:10.1016/j.respol.2008.04.016.
- Budyldina, N. (2018) 'Entrepreneurial universities and regional contribution', *International Entrepreneurship and Management Journal*, 14(2), pp. 265–277. doi:10.1007/s11365-018-0500-0.
- Cunningham, J.A. et al. (2019) 'The impact of university focused technology transfer policies on regional innovation and entrepreneurship', *Journal of Technology Transfer*, 44(5), pp. 1451–1475. doi:10.1007/s10961-019-09733-0.
- Etzkowitz, H. and Klofsten, M. (2005) 'The innovating region: Toward a theory of knowledge-based regional development', *R and D Management*, 35(3), pp. 243–255. doi:10.1111/j.1467-9310.2005.00387.x.
- Guerrero, M., Urbano, D. and Fayolle, A. (2016) 'Entrepreneurial activity and regional competitiveness: evidence from European entrepreneurial universities', *Journal of Technology Transfer*, 41(1), pp. 105–131. doi:10.1007/s10961-014-9377-4.
- OSUN Global Social Enterprise Practicum - 2021 Assessment Report Final (1). (n.d.).
- Othman, N., & Ab Wahid, H. (2014). Social entrepreneurship among participants in the students in free enterprise program. *Education and Training*, 56(8/9), 852–869. <https://doi.org/10.1108/ET-09-2013-0111>
- Pillay, P., & Mitra, J. (2015). Socialising Entrepreneurship: An Activist Approach. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 1(1), 79–98. <https://doi.org/10.1177/2393957514555050>
- Rampasso, I.S. et al. (2021) 'Implementing social projects with undergraduate students: an analysis of essential characteristics', *International Journal of Sustainability in Higher Education*, 22(1), pp. 198–214. doi:10.1108/IJSHE-11-2019-0323.
- Roncancio-Marin, J.J. et al. (2022) 'Shaping the social orientation of academic entrepreneurship: an exploratory study', *International Journal of Entrepreneurial Behaviour and Research*, 28(7), pp. 1679–1701. doi:10.1108/IJEER-07-2021-0600.
- Salamzadeh, A., Azimi, M. A., & Kirby, D. A. (2013). Social entrepreneurship education in higher education: Insights from a developing country. *International Journal of Entrepreneurship and Small Business*, 20(1), 17–34. <https://doi.org/10.1504/IJESB.2013.055691>
- Siegel, D.S. and Wright, M. (2015) 'Academic Entrepreneurship: Time for a Rethink?', *British Journal of Management*, 26(4), pp. 582–595. doi:10.1111/1467-8551.12116.
- Worldbank. (2022). Ten 21st-century Skills Every Student Needs | World Economic Forum. www.Worldbank.Org. <https://www.weforum.org/agenda/2016/03/21st-century-skills-future-jobs-students/>
- Wright, M. (2014) 'Academic entrepreneurship, technology transfer and society: Where next?', *Journal of Technology Transfer*, 39(3), pp. 322–334. doi:10.1007/s10961-012-9286-3.

Title:

Monuments as Instruments for Construction of the Past / 29

Fake memory

Author: Hanna Dimitrova^{None}

Corresponding Author: hannadimitrova02@yahoo.com

The monument of the Soviet soldier is located in "Lozenets" and is the second one regarding the Soviet Union. It was established between 1952 and 1954 and is considered to contain bones from soldiers who died in the "Отечествената война." In my research, I will highlight to what extent people value the monument and how much they know about it. In addition, we will look through documents filled in for removing the monument and the outcome of those. The video's main idea is to highlight how people nowadays recall the happening in Bulgaria after the end of the second world war and what their approach towards such monuments is, mainly because they are present in cities all over Bulgaria.

Title:

Fake Memory

Mathematics / 30

Introduction to Fourier Analysis

Authors: Gent Mulaku^{None}; Peter Dalakov^{None}

Corresponding Author: gnm190@aubg.edu

In this paper we discuss some basic aspects of functional analysis such as orthogonality, completeness, Hamel and Schauder bases, as well as some other aspects of the geometry of infinite-dimensional Euclidean spaces. We then proceed with the Weierstrass approximation theorem and the fundamentals of Fourier analysis. We conclude with some applications of this theory.

Title:

Psychology / 31

Dissemination of CBS in Low- and Middle-Income Countries

Author: Valeriya Sotnikova^{None}

Corresponding Author: vns210@aubg.edu

Contextual Behavioral Science (CBS) is a multi-level system of philosophical assumptions, scientific values, and methodological commitments that underlies the development of psychological therapies such as Acceptance and Commitment Therapy (ACT). Despite being an evidence-based approach with many benefits, CBS has not been widely disseminated in Low- and Middle-income countries (LMIC). My Independent Study aims to contribute to the research project "Processes of Disseminating CBS in Low- and Middle-Income Countries" by identifying the main strategies, obstacles, and successful strategies from interviewees' perspectives related to the dissemination of CBS in 11 countries. The original research team is integrated by four members of The ACBS Developing Nations Committee: Claudette Foley, Cheryl Malek, Viliyana Maleva, and Suzy Adel. The supervisor of this Independent Study is Professor Felix Diaz.

The research team conducted 16 interviews with psychologists from 11 different LMIC countries in Africa, Latin America, Asia, and Europe where the dissemination of CBS is taking place. AUBG student Filippos Kinigopoulos transcribed three interviews, which I later edited. I transcribed the other 13 interviews. The total data set consists of approximately 16 hours of interviews, which were then transcribed into about 105,000 words.

After the interviews were transcribed, I did the thematic analysis of the transcripts using MaxQDA, a qualitative research tool. The findings reveal that the main strategies for the dissemination of CBS across 11 countries are:

Public Events: workshops, conferences, public lectures, training, courses, etc.

Universities: dissemination through the academic route as integrating CBS into the course curriculum and giving lectures

Internet: dissemination of CBS through websites and social platforms such as YouTube, Facebook, and Instagram

Research: conducting research related to CBS and its use in different spheres of life

Results of the thematic analysis also showed that the main obstacles to CBS dissemination are a lack of financial support, language barriers, and regulations and certification related to psychologists and psychiatrists. The most prevalent factor that interviewees found successful and that contributes to the successful dissemination of CBS in LMIC countries is networking. This includes collaborations with specialists from the home country or a foreign country, having a strong, reliable team/board, and having opportunities for peer-review and supervision. Some smaller factors that impact successful dissemination include being patient, using dissemination strategies that relate to the unique context (culture), having high-quality, credible trainers, and being passionate about ACT and CBS.

In conclusion, the results suggest that context sensitivity and appropriateness are vital factors in the successful dissemination of CBS. Overall, this study provides some valuable insights into the dissemination of CBS in LMIC countries and can be used to suggest potential strategies for CBS dissemination in other LMIC countries. Further research is needed to explore these findings in other countries and among a larger sample of participants. A question for further reflection is "Is it possible to disseminate CBS in a non-colonial way?"

Title:

Monuments as Instruments for Construction of the Past / 33

"The "Movement" Monument - The Untold Story"

Author: Yoana Zasheva^{None}

Corresponding Author: ypz220@aubg.edu

My video titled "The "Movement" Monument - The Untold Story" reveals the unheard before story of The "Movement" Monument, here, in Blagoevgrad, and reveals the truth behind the process of coming up with the idea of the monument, the process of working on it, moving the monument from place to place, the essence behind the composition figures, all told, presented and gathered as information thanks to the artist that developed the idea and constructed the monument - Mr. Pavel Koychev. It also includes feedback from students today and their thoughts on the monument. My wish for this project is to deliver a truthful and a quite heartfelt story that made me broaden my horizons and develop an even stronger sense of belonging. I hope by presenting the Monument that to me will forever play the role of a cultural heritage and a vital part of Blagoevgrad, I bring forward the truth and shed light to a story that deserves to be heard and seen.

Title:

Business 3 / 35

Entrepreneurial Training, Policies and Ecosystem Needs Beyond New Product Development: A Qualitative Study Based on Insights from the Local Ecosystem Participants in Blagoevgrad Region

Author: Rossen Petkov¹

¹ AUBG

Corresponding Author: rpetkov@aubg.edu

Small and medium-sized enterprises (SMEs) are the backbone of Europe's economy. They represent 99% of all businesses in the EU. They employ around 100 million people, account for more than half of Europe's GDP and play a key role in adding value in every sector of the economy. SMEs bring innovative solutions to challenges like climate change, resource efficiency and social cohesion and help

spread this innovation throughout Europe's regions. They are essential to Europe's competitiveness and prosperity, industrial ecosystems, economic and technological sovereignty, and resilience to external shocks (https://single-market-economy.ec.europa.eu/smes_en). It is thus important to assure the support and growth for entrepreneurial ideas and enthusiasts, who can strengthen national and regional capacity.

The EU funded local Bulgaria-Greece project SEA (Smart Cross-border Entrepreneurship Accelerator) is an ambitious cross-border project pursuing tangible and sustainable results built around a comprehensive work program (<https://sea-project.eu/the-project/>). According to the proposal, the initial concept of the project was grounded on the deep insight into the existing business environment, which identified a gap in the target groups addressed thereby – deficiency of services targeting specifically young entrepreneurs and start-ups with untapped potential to turn an idea into a business. Existing services address well-established businesses or ambitious, innovative companies, scale-ups and companies with high potential to scale-up primarily.

The project proponents have further identified that the entire cross-border region of Greece and Bulgaria is characterized by an ever-deepening trend of having the local start-ups and young entrepreneurs draining out to big cities (Sofia, Thessaloniki, Athens) or even abroad. Furthermore, young entrepreneurs, especially in remote areas or areas lagging behind, often have as a starting point the wrong perception that the only thing their business idea lacks is the missing funding (<https://sea-project.eu/the-project/>).

The study is based on an extended focus group format conducted in the summer of 2022 with a wide variety of participants from the Blagoevgrad municipality, current and up and coming young entrepreneurs, members of organizations, which support entrepreneurs, an Entrepreneurship teacher from the local high school, a lawyer, as well as members from local NGO's and/or social groups, which support the development of the city.

The findings are grouped into three areas. Firstly- related to skills, knowledge and training needs the focus group identifies that the original program is missing one important general area related to operations, leadership and people management, leading to an adaptation to the training program. The second topic of existing policies and investment climate identifies the biggest information gaps related to financing entrepreneurial projects. The third area of investigation, related to the local Entrepreneurial Ecosystem, identifies potential growth spheres, as well as the need for more information and the possible creation of a regional network or hub to support individuals with new product and service ideas.

Keywords: Entrepreneurship, Entrepreneurial Training, Regional Entrepreneurial Ecosystem, Marketing and Management Training for Entrepreneurs

Title: