

BSBI Gazette

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Editorial



Professor Dr. Kyriakos Kouveliotis FRSA

Provost & Chief Academic Officer,
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For this week's Editorial I want to share a great inspirational poem by Berton Braley. It is called: The Will to Win.

If you want a thing bad enough
To go out and fight for it,
Work day and night for it,
Give up your time and your peace and
your sleep for it
If only desire of it
Makes you quite mad enough
Never to tire of it,
Makes you hold all other things tawdry
and cheap for it
If life seems all empty and useless without it
And all that you scheme and
you dream is about it,
If gladly you'll sweat for it,
Fret for it, Plan for it,
Lose all your terror of God or man for it,
If you'll simply go after that thing that you want.
With all your capacity,
Strength and sagacity,
Faith, hope and confidence, stern pertinacity,
If neither cold poverty, famished and gaunt,
Nor sickness nor pain
Of body or brain
Can turn you away from the thing
that you want,
If dogged and grim you besiege and beset it,
You'll get it!

Photo of the Week



Inspirational Quotes

There are always flowers for those
who want to see them.

– **Henry Matisse**

Some days there won't be a song in
your heart. Sing anyway.

– **Emory Austin**

You only live once, but if you do it
right, once is enough.

– **Mae West**

It is only with the heart that one can
see rightly; what is essential is invisible
to the eye.

– **Antoine de Saint-Exupery**



Whatever the mind of
man can conceive and
believe, it can achieve.

– **Napoleon Hill**

Article of the Week



Dr. Svitlana Samoylenko
Lecturer

Areas of expertise:

Philosophy of Science, Life Strategies of
Personality, Business Studies

THE ROLE OF INSTITUTIONAL FACTORS IN SHAPING SOCIAL AND ECONOMIC CHANGES

When economists start debating on the role of institutional factors, neo-institutionalism's response to the formation of public policy and the global public economy in transition is the introduction of a three-level concept of state-society relations. The first and broadest level is the state tradition. The second level is the middle level, the level of specific political, economic, and social sectors. And the third level is the micro-level of political (economic) networks within the political community.

Based on this concept, a special view has been formed to distinguish between purely legal aspects and organisational, social and economic structures that operate on the basis of informal rules. A few analytical neo-institutional schools have emerged at the operational level. Among the main neo-institutional schools, there are three, the difference between which lies in determining the place of institutional norms: sociological (cultural); economic and historical (structural). The first school defines institutions as social rules that embody not only formal rules and procedures inherent in a particular organisation, but also a system of values, symbols, cognitive schemes and rules of behaviour. They are cultural guidelines, as they provide members of the organisation with a framework that defines individual behaviour. Social conventions predefine the role of players, periodically updating the legitimacy of organisations in a broad sense. The founders of this school include J. Marsh and J. Olsen. Norms are created and reproduced by individuals, groups and organisations independently.

Their change depends on the previous norms, which are transformed into derivative variants, because of changes in the worldview of individuals. The advantage of schooling in this case is the focus on social relations and social roles in society. At the same time, there is still ambiguity about the true nature of the relationship between social norms and institutional policy, the formalisation of certain norms by the state.

The second connects institutions with voluntary agreements between individuals in the process of exchange. Such (incomplete) contracts reduce the uncertainty inherent in any collective decision, which stems from incomplete information and the limited cognitive capacities of the players. The desire to resolve this uncertainty without any institutional framework at all would lead to too high a price for each individual transaction. Within this school, individuals freely negotiate formal rules and adopt informal codes of conduct. The purpose of these codes is to ensure a certain predictability of the behaviour of other players and the results of collective action. The founders of this school are the Nobel laureates in economics R. Coase and D. North, whose research was continued by no fewer famous laureates E. Ostrum and O. Williamson. The process of emergence or modification of institutional norms is conditioned by the functional orientation - satisfaction of the interests of stakeholders. Institutional changes are intended to establish a balance when the preferences of each of the players change to reduce the uncertainty that arises when using previous practices in new conditions. Significant advantages of this school are the clarity and conceptual connection between cause and effect in economic behaviour, and the widespread use of formal and deductive logic.

However, there are methodological limitations associated with the narrow ability to explain institutional stagnation.

And, thirdly, it expresses institutional norms as state structures and/or social structures in general. They are added to constitutional and legal norms, to formal political and administrative procedures and informal agreements that define the rules of the game between players. In fact, structural neo-institutionalism has emerged as an intermediate between sociological and economic neo-institutionalism. Institutional norms accept the preferences and identities of individuals, while the latter use them strategically to achieve their interests. Such views, according to contemporary neo-institutionalists, are first traced in the works of P. Evans, P. Hall, S. Steinmo.






In general, informal processes and legal norms are introduced into the structure of the political

system.

They reflect the power relations between players and access to the decision-making arena of individual players. That is, institutional norms are cultivated from existing norms as parallel to them. Such norms are mostly of a stabilising nature, maintaining the previous structure of development until certain players propose adequate and natural changes. Among other schools, this one has an undeniably higher level of combining several decision-making logics and considers structure as a contour of interaction. However, it is not without the drawbacks of using an inductive approach to studying structural interactions. The risk of structural determinism remains. It is worth noting that this division is rather arbitrary, since not only the third school in our account, but also the first and second in the works of their founders overlap with each other. Various combinations of understanding of both social and economic development processes are formed. Institutions are rarely homogeneous. In fact, public and private institutions are often mixed and dependent on each other, rather than existing in isolated worlds.

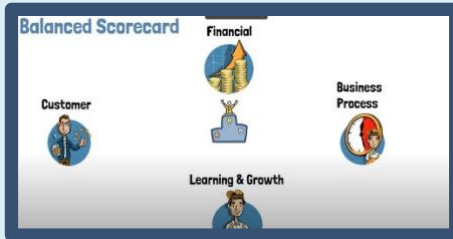
At the same time, both social and economic institutional changes are outside the scope of stable institutional structures. In the first case, they are only being formed and cannot directly affect the structure of society and the state, while in the other case, they are a consequence of the incompleteness of the structures themselves, their limitations. In other words, this indicates the non-formalised nature of such institutions (rules). In parallel to this idea, J. Marsh and J. Olsen emphasise that institutions (organisations) achieve a unique form conditional on certain circumstances and thus are independent of the historical path. Thus, expanding on E.Ostrum's conclusion that norms adopted in a situation of collective choice directly affect operational situations, and indirectly influence legal norms. The tendency to form the modern paradigm of the state as an object of social creation with the behaviour of the subject is also confirmed. The state may reflect its own interests not always for the benefit of society. Its behaviour remains unchanged until chaotic actions and rulemaking develop into certain organised influences on the structure: modern states are rather conservative entities that hinder the development of societies. This is in line with O. Williamson's belief that the question remains when the state should intervene in socio-economic processes, under what conditions and at what level of complexity. Because it is not society that follows the state, but the state that follows society. Therefore, bottom-up structuring is the basis of effective institutions and allows to rely on social capital. Conditions are being created for building new economic models and theories about the state as a full-fledged participant in economic processes, which is actively involved in the indirect formation of society, creating conditions for the development of the social environment for the future transition to new economic realities.

Websites of the Week

-  [What is Financial Management System?](#)
-  [What is Developmental Psychology?](#)
-  [What is Knowledge Management?](#)
-  [What is Information Management?](#)
-  [What are Human Rights?](#)

Books of the Week

Videos of the Week



The Balanced Scorecard



Strategic Planning for Boards of Directors



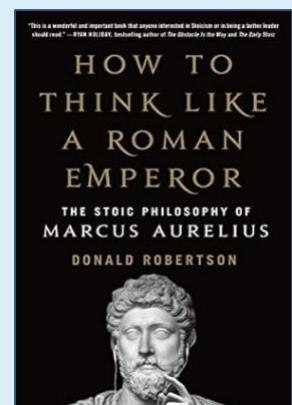
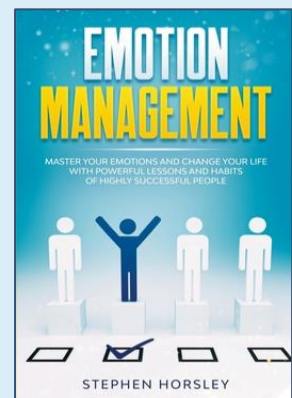
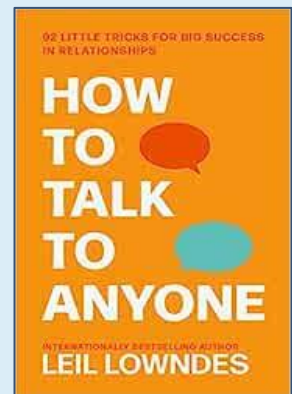
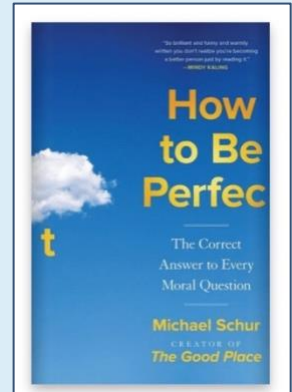
"Strategy Maps" Explained in 3 Minutes



Ditch Your Old Thinking with Roger L. Martin



4 Tips to Improve Your Public Speaking by Simon Sinek



**BERLIN SCHOOL OF
BUSINESS & INNOVATION**

Week in Review

All you need to know about everything that matters



Dr. Niloufar Aminpour

Lecturer/Academic Initiatives Coordinator

Areas of expertise:

Gender Studies, 20th Century American
Drama, Literary Criticism

METaverse/LITERATURE

The Impact of Metaverse on Citizens

The Metaverse is a combination of virtual and augmented realities, and it has a significant impact on the way people interact with each other and their surroundings. It offers many opportunities to change how people live, work, learn, and socialize. However, we need to approach this new realm with caution and address any challenges that arise to ensure a fair and comprehensive development for everyone. The Metaverse has a profound impact on people's social lives by providing immersive experiences that allow individuals to stay connected with each other in real time. This technology helps to overcome physical barriers and facilitates the development of stronger interactive bonds. Moreover, the Metaverse is transforming the educational paradigm by providing a comprehensive learning experience that allows individuals to access a vast array of material and develop new skills through interactive and captivating methodologies. This technology helps to equalize educational opportunities and cultivate an inclusive atmosphere for learning all around the world. The Metaverse also has a significant impact on the entertainment industry. It enables individuals to engage in new recreational activities, such as immersive gaming, virtual concert attendance, and digital art gallery exploration. This phenomenon creates novel opportunities for cultural expression and consumption as well. The Metaverse is also reshaping the workplace by introducing virtual working environments that enable employees to participate in collaborative activities and temporary inclusivity in a more adaptable manner. This happening has the potential to result in an enhanced balance between work and personal life, heightened efficiency, and broader projections for employment.

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Furthermore, the Metaverse is significantly transforming the economic actions of ordinary individuals through the introduction of innovative platforms for commerce, financial projects, and business ventures. However, we need to recognize potential obstacles and disparities that may emerge as a result of the Metaverse and address challenges such as the digital divide, data privacy, and ethical considerations to ensure fair and secure engagement for all individuals.



Dr. Syed Muhammad Ali

Lecturer

Areas of expertise:

Knowledge Management, Organizational
Behaviour, Team Performance, Business
Management & Administration

Human Resources Management

Inclusivity and Diversity at Workplace

Nowadays, many employers in the corporate world are focusing tremendously on implementing diversity and inclusion policies in their specific organizations. There are many reasons why diversity and inclusion are significant in the workplace. For example, many equal opportunities provider companies are performing better than their competitors because of respecting the values, opinions and ideas of their diverse teams. Likewise, including all employees in the policy making develops trust and a better working environment which further supports organizational innovation. Moreover, it was revealed by various scholars that diversified teams are much more beneficial and engaged than normal ones.



Image source: [link](#)

As Sam Daley stated, "In a workplace, diversity means that the workforce is made up of employees with different races, gender identities, career backgrounds, skills and so on. Diversity is proven to make communities and workplaces more productive, tolerant and welcoming. Inclusion is the practice of providing everyone with equal access to opportunities and resources. Inclusion efforts in the workplace help to give traditionally marginalized groups — like those based on gender, race or disabilities — a means for them to feel equal in the workplace. Inclusive actions, like creating employee resource groups or hosting information sessions, make the workplace a safer, more respectful environment for all employees" (Daley & Velazquez, 2022). [link](#)

It is very fruitful and always brings positive results if employees' voices and opinions are heard and considered. Usually, companies with diversified talents would generate high revenues and growth rapidly, as diversified employees have unique knowledge, skills and abilities which they normally utilize while performing their jobs in these companies. Ultimately, these companies grow faster with the support of these employees and consequently employees also want to work on long term basis. Inclusion even gets more vital if in case the companies get more diverse. Therefore, struggles for inclusion require us to concentrate more on making each employee feel happy, trusted, as well as respected.

Companies need to be very careful while retaining their existing employees, because if employees feel that their presence, ideas or inputs are not making any contribution or are not considered serious by the management, they may finally start thinking for leaving that specific company. Top companies in the world are always looking for diversified human resources to manage their businesses and always focus on including all employees in their policies and decision making as well as offer equal opportunities to all to further perform better. With the help of diversity and inclusion practices, these companies gain a competitive edge over their competitors and always perform very exceptionally by bringing unique ideas in the market.

Many top companies who are transforming the future of businesses are working on diversity and inclusion initiatives such as retail giants Costco, Amazon, Walmart and Target, and similarly Tech behemoths such as Apple, IBM, Dell (Colvin, 2022). [link](#)



Image source: [link](#)

To conclude, companies which understand the importance of diversity and inclusion and fully implement it in their practices are more successful and have grown incredibly. Companies having different minds and talents are ready to respond to any challenge they face and always work on various innovative ideas with unique skills and abilities.



Dr. Kamyar Esmaeili Nasrabadi
Lecturer

Areas of expertise:

Human Resource Management, Business Management, Tourism, Customs

EMPLOYEE SUSTAINABILITY

The Empathetic Connection: Enhancing Employee Sustainability through Emotional Intelligence

As we delve into the exploration of EQ's vital aspects, we now turn our attention to emotional empathy, examining its profound role in employee sustainability. Emotional empathy is the ability to recognize and resonate with the feelings of others. It involves not just perceiving their emotions but also comprehending their perspectives and experiencing a sense of compassion. This component of EQ is the cornerstone of effective interpersonal relationships within the workplace.

Empathy plays a multifaceted role in EQ. Firstly, it fosters better interpersonal relationships by enabling employees to connect on a deeper, more authentic level. When team members can genuinely understand and empathize with each other's emotions, conflicts are mitigated, and collaboration flourishes. Secondly, empathy contributes to emotional self-awareness, a critical aspect of EQ.

By attuning to the emotions of others, individuals become more attuned to their own feelings and reactions, thus enhancing their emotional self-awareness.

The positive effects of emotional empathy on employee sustainability are manifold. A workplace where emotional empathy is nurtured and valued is likely to experience:

- **Enhanced Team Dynamics:** Teams that exhibit emotional empathy tend to be more cohesive, resilient, and adaptive.
- **Increased Employee Engagement:** Employees who feel understood and valued are more engaged and motivated. Their emotional well-being is better supported, leading to increased job satisfaction, and reduced turnover rates.
- **Conflict Resolution:** Emotional empathy equips individuals with the skills to address conflicts constructively. This results in quicker resolutions and prevents lingering disputes from affecting team morale.

To enhance empathy among employees, organizations can implement strategies such as providing training and workshops focusing on active listening, perspective-taking, and empathetic communication skills. Encouraging leaders and managers to set a positive example by demonstrating empathy in their interactions with employees is essential. Additionally, recognizing and rewarding acts of empathy within the organization helps reinforce its importance and encourages widespread adoption. By enhancing interpersonal relationships, fostering emotional self-awareness, and promoting a supportive workplace culture, empathy paves the way for happier, more engaged, and resilient employees, ultimately benefiting both individuals and organizations alike.

Useful links: [Link1](#), [Link2](#), and [Link3](#).



Mostafa Gaballa
Lecturer

Areas of expertise:

Tourism, Hospitality, Travel

TOURISM

World Tourism Day 2023

On World Tourism Day 2023, leaders from every global region have united around a shared determination to invest in the sector's growth and transformation. Held around the theme of "Tourism and Green Investments," the celebrations of the Global Day of Observation have been the biggest and most impactful on record.

UNWTO has identified investments as one of the key priorities for tourism's recovery and future growth and development. For World Tourism Day 2023, UNWTO highlights the need for more and better-targeted investments for people, for planet and for prosperity. Now is the time for new and innovative solutions, not just traditional investments that promote and underpin economic growth and productivity.

The stage is set for World Tourism Day 2023, with the global sector to come together around their theme of Tourism and Green Investments. In what is set to be the biggest celebration to date, the official celebrations were held on 27 September in Riyadh, Kingdom of Saudi Arabia. At UNWTO's Member States marked the occasion in every region through a range of special events and programmes. For more information visit the following [link](#).

UNWTO Secretary-General Zurab Pololikashvili says: "Tourism has never been more important for our economies or for our societies. Its potential is enormous. And so, on this World Tourism Day, we celebrate tourism's ability to drive growth while also highlighting the vital need for investments to ensure such growth is inclusive and sustainable."

On World Tourism Day 2023, UNWTO placed the emphasis on Tourism and Green Investments. The day focused on the importance of:

- **Investment for People** (by investing in education and skills),
- **For Planet** (by investing in sustainable infrastructure and accelerating green transformation)
- **For Prosperity** (by investing in innovation, technology, and entrepreneurship).

In Riyadh, UNWTO presented its Global Tourism Investment Framework and held a series of high-level panels focusing on the challenges and opportunities surrounding investment in tourism. The official World Tourism Day celebrations also saw the winners of the inaugural UNWTO Women in Tech Startup Competition for the Middle East announced.

The first World Tourism Day was held in 1980. As the Global Day of Observance for tourism, it offers a chance to celebrate the sector's vital role in advancing peace and prosperity and UNWTO's global regions take turns in hosting the official celebrations, always around a timely and relevant theme. The date of 27 September marks the day the Statutes of the Organization that became UNWTO were signed.

World Tourism Day is a crucial annual celebration that highlights the significance of tourism in promoting global understanding, economic growth, and cultural exchange. It serves as a reminder of the need for sustainable and responsible tourism practices to ensure the preservation of natural and cultural heritage for

future generations. This day encourages people to explore new destinations, appreciate diverse cultures, and recognize the vital role of tourism in fostering peace and prosperity worldwide.



Dr. Konstantinos Kiousis
Lecturer

Areas of expertise:

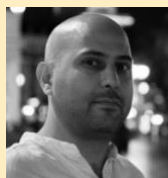
Human Resource Management, Leadership, Counselling & Career Guidance, Modern Educational Approaches

INTERNET

FC Barcelona records impressive financial year with €304 Million

The FC Barcelona Board of Directors reported recently that the 2022/23 financial year has closed with a net profit of €304 Million after taxes. During the previous season, FC Barcelona achieved an operating income of €1.259 Billion, forming a record for operational figures in the commercial and venue operation sections. On a commercial level, with revenue of €351 Million (+43% compared to the previous year), the club has obtained all-time record figures. The Sponsorship area practically reached €200 Million and sales at Barca Stores amounted to €100 Million, also an absolute record. Venue operations had a total revenue of €229 Million (+14% than budgeted).

The significant increase in turnover at Spotify Camp Nou is especially remarkable, with €121 Million in income generated by the first season ever to see a Million tickets. The Board of Directors would like to emphasize that Spotify Camp Nou was the stadium with the highest average attendance in Europe last season, according to the UEFA report, demonstrating in this way the strength of the FC Barcelona brand, which continues to be a global benchmark for creating synergies and offering unique fan experiences. The Board stresses that the club's net debt has been reduced for the second consecutive season, dropping from €680 Million in 2021 to the current €552 Million. For more information, please visit the following [link](#).



Dr. Mahmoud Manafi
Lecturer

Areas of expertise:

Human Resources Management, Marketing Management, Economics, Mathematics

LITERATURE

Magic Realism

Magic realism, a literary genre that blends the real and the fantastical, has left a profound mark on literature worldwide. Originating in Latin America during the mid-20th century, magic realism emerged as a response to the region's tumultuous political and social realities. Writers like Gabriel Garcia Marquez, Isabel Allende, and Jorge Luis Borges infused their narratives with elements of magical events, mythical creatures, and surreal occurrences, all seamlessly interwoven into everyday settings. By juxtaposing the extraordinary with the mundane, magic realism challenges readers' perception of reality and delves into the complexities of human existence.

One of the distinctive features of magic realism is its ability to capture the essence of cultural and historical contexts while incorporating elements of folklore and indigenous beliefs. This blending of the magical and the real allows authors to explore themes such as identity, memory, and the blurred lines between truth and fiction. The genre also serves as a powerful tool to address sociopolitical issues, reflecting the socio-economic struggles and political upheavals experienced in Latin America. Through this narrative technique, magic realism offers a unique lens to examine the human condition and the intricate tapestry of life in both local and universal contexts.

Magic realism's influence has spread far beyond its Latin American roots, permeating literature across the globe. Authors from various cultures and regions have adopted the genre's approach to storytelling, creating a rich tapestry of narratives that transcend borders. The genre's ability to fuse the magical and the real continues to captivate readers, prompting them to question the boundaries between reality and imagination. As a literary movement, magic realism has contributed to a deeper understanding of cultural diversity, human emotions, and the complexities of the human experience, leaving an indelible mark on the world of literature.

Links: [Link1](#) and [Link2](#).



Dr. Noah Mutai
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Areas of expertise:

Applied Statistics, Econometrics, Business Analytics

DATA SCIENCE

Uncertainties, Errors, and Bias in Data-Driven Processes

In today's digital age, data plays a pivotal role in decision-making, innovation, and progress across industries. The advent of advanced computing technologies and the proliferation of data collection methods have empowered individuals and organizations to leverage data-driven processes for insightful analysis and informed decision-making. However, beneath this data-driven revolution lies a complex landscape riddled with uncertainties, errors, and bias that can significantly impact the quality and reliability of outcomes. In this article, we delve into the intricacies of these challenges and explore strategies to adeptly navigate them.

Uncertainty inherently accompanies any data-driven process. It arises from diverse sources, encompassing the intrinsic variability of data, limitations of measurement instruments, and the intricate nature of the systems under study. Statistical methods are frequently employed to quantify and manage uncertainty, yielding confidence intervals and margins of error. These tools provide decision-makers insights into the range within which a specific result is likely to fall, thereby facilitating cautious and well-informed decision-making.

Predictive modeling often manifests uncertainties through prediction intervals. These intervals offer a spectrum of values within which future observations are expected to reside, accounting for the inherent variability and noise embedded in the data. Recognizing uncertainties becomes paramount when engaging with these models, as disregarding them can foster overconfidence and unrealistic expectations.

Errors: Inevitable yet Manageable

Errors within data-driven processes can stem from various origins, ranging from data collection and input to computational algorithms. It is crucial to distinguish between random errors and systematic errors. Random errors denote inherent fluctuations during data collection or measurement, whereas systematic errors denote consistent biases skewing results in a particular direction.

Mitigating errors necessitates a blend of meticulous experimental design, rigorous quality control procedures, and ongoing monitoring. Incorporating redundant measurements, calibration standards, and cross-validation techniques aids in identifying and rectifying errors before they propagate through the analysis. Moreover, recognizing the presence of errors and transparently communicating their potential impact is pivotal in upholding the credibility of data-driven insights.

The Pitfalls of Bias in Data Analysis

Bias presents a formidable challenge in data-driven processes, capable of distorting results and undermining the integrity of analyses. Bias can emanate from diverse sources, such as sampling methods, measurement instruments, or the subjective perspectives of analysts. It can materialize as selection bias, wherein specific groups or data points are overrepresented or underrepresented, ultimately skewing conclusions.

Addressing bias mandates a multifaceted approach. First and foremost, critically evaluating the data collection process ensures that the sample is a faithful representation of the pertinent population. Additionally, routine calibration and validation of measurement instruments assist in alleviating bias stemming from measurement inaccuracies. In instances where human judgment exerts influence, a diverse analytical team aids in identifying and mitigating subjective biases.

Strategies for Navigating Uncertainties, Errors, and Bias

In the realm of data-driven processes, the principles of transparency and documentation stand as pillars of utmost importance. Clear and comprehensive documentation detailing the origins of data, the methods of collection, and the procedures employed for analysis is not merely advisable, but imperative. This transparency extends an invitation for others to scrutinize the reliability of the analysis and to understand the potential sources of uncertainty or bias that may be at play.

In the pursuit of refining accuracy and enhancing the applicability of models, the significance of robust validation and cross-validation cannot be overstated. The meticulous validation of models and algorithms against independent datasets serves as a beacon to identify any lurking shortcomings. Through this process, models are refined, and their scope of generalizability is expanded. Cross-validation techniques come to the fore, ensuring that models consistently perform well across a diverse array of data subsets, providing a robust and reliable foundation.

The orchestration of ensemble methods, wherein predictions culled from various models are harmonized, emerges as a strategy to bolster accuracy, and counterbalance the influence of errors or bias entrenched within individual models.

This amalgamation of diverse insights forms a composite picture that is more comprehensive and resilient than the sum of its parts. A commitment to quality necessitates regular auditing and review. The periodic assessment of data collection processes and analytical methodologies is akin to a routine health check-up for the integrity of one's insights. Such scrutiny allows for the timely identification and rectification of errors and biases that might have seeped in over time, ensuring the continued relevance and reliability of the analysis.

At the core of these considerations lies an ethical imperative. Ethical contemplations become intertwined with discussions surrounding uncertainties, errors, and bias in the realm of data-driven processes. Data analysts assume the mantle of guardians, entrusted with the task of safeguarding against the propagation of unfairness and misinformation. This duty necessitates a delicate balance between harnessing the full potential of data while steadfastly preserving its integrity. In this equilibrium, data analysts chart the course toward a future where data-driven decisions are not just accurate, but ethically sound and socially responsible.

Conclusion

In the epoch of data-driven decision-making, comprehending and navigating uncertainties, errors, and bias are pivotal in generating dependable and actionable insights. Acknowledging inherent uncertainties, addressing errors, and mitigating biases entail a fusion of robust methodologies, transparent reporting, and ethical contemplation. As data perpetually shapes our world, mastering the finesse of managing these challenges remains pivotal in unlocking the full potential of data-driven processes while safeguarding their credibility and societal impact.



Dr. Priyadarshini Pattanaik
Lecturer

Areas of expertise:

Deep Learning, Machine Learning for Health, Bioinformatics, Image and Multidimensional Signal, Digital Health

KINEMATICS

Hybrid UNet+Attention for Automated Knee Joint MRI Image Segmentation

Kinematics and shape are two unique key features used to evaluate and analyze the capability of our human joint system. Joints are the most significant parts of the human body. To comprehend the capability of the human body joints (i.e. knee joints) exact estimations of both motion and shape are required. A piece of precise information on the in vivo kinematics of the knee is significant as Vivo estimations are muddled to acknowledge and enhance the therapy of knee pathologies and treat the ongoing degenerative issue of joint sickness like Osteoarthritis (OA). Osteoarthritis (OA) likewise named "Degenerative Joint Disorder", is the most common human musculoskeletal pain, that predominantly influences weight-wearing joints like the knee, hip, feet, and fingers. Numerous scientists have moved their concentration to the anticipation and treatment in the beginning phase of the infection. Appropriately, it is fundamental to comprehend the predominance, occurrence, and modifiable risk factors of knee OA for giving adequate preventive strategies. New imaging technologies, diagnostics, and biomarkers have been utilized for the early determination of OA. It is ineffectively applied to numerous applications like diagnosis, observing, and in any event, treating disease. The improvements in IT equipment, programming, and clinical imaging procedures, had synergistically prompted a fast rise in the expected utilization of Artificial Intelligence (AI) in different radiological imaging errands like progression, diagnosis, identification, and treatment reaction. Pathological imaging makes the visual portrayal of the inside pieces of the body. It additionally assists in the establishment of the database of anatomical structures and physiology which assists with recognizing potential irregularities and fills in as a wellspring of clinical information for additional exploration and study. It incorporates different biological imaging visualization techniques like Magnetic Resonance Imaging (MRI), Computed Tomography (CT), and X-ray. However, identifying motion in living beings like humans remains a challenge in biomedical engineering studies. Past investigations have utilized different advancements to quantify motion in the human body, involving image and video databases. Few currently updated surveys have delivered three-dimensional automated techniques using CT scans database to estimate the kinematics of the contact points between the femur and tibia geometrical structure. Designing such type of morphokinematic architecture develops the chance to evaluate and analyse the motion of the knee and explore internal relationships between different morphological features, like, as contacting regions or areas. Information on the effectiveness and reliability of dynamic measurement techniques is necessary when choosing the strategy to guarantee a precise interpretation of the outcomes. Effectiveness measures the accuracy of a method that is proposed to estimate, and the level or degree the method acquires like the true positive values.

To address the above challenges, the key contribution of this work is to segment, extract, and visualize the emergent patterns in medical MRI samples, and encouraged by the hybrid attention mechanism, we introduce Hybrid UNet+Attention, an effective and reliable segmentation model.

To acquire a highly efficient, flexible, superior, and lightweight network, we designed an integrated network called UNet+Attention for MRI image segmentation. A series of nested dense fully connected convolutional blocks of encoder and decoder are symmetrically placed on the two sides of the whole network. The proposed network gathers all together the context data extracted using the encoder and then fed to the decoder by short-skip connections and a self-attention mechanism. This network helps to minimize classification error and suits sparse sample-based works by improving the directness and transparency of the hidden layer learning system.

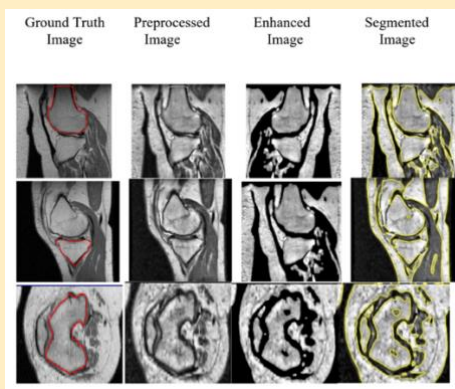


Figure 1: Description of the pre-processing and segmented performance for MICCAI 2010 SKI10 knee dataset with cartilage loss [link](#)

In this study, to prove the effectiveness and feasibility of our proposed hybrid UNet+Attention, we compared with UNet, Attention UNet, and Attention R2U-Net for the knee bone femur-tibia segmentation assessment. In this study, the proposed Hybrid UNet+Attention outperforms for knee MRI image segmentation in six performance metrics parameters, achieving the Intersection over Union (IoU) ratio increase of 7.99%, the dice coefficient improved by 3.7% with the precision and recall rate enhanced by 5% and 4% over U-Net. Our proposed segmentation technique was proved to provide quick and accurate femur, tibia, and cartilage segmentation on MICCAI 2010 SKI10 knee dataset. In addition, we discovered that the hybrid UNet+Attention improvises and enhances the weights of the focused targeted region by maintaining high accuracy while neglecting the background region i.e. not necessary to the segmentation process reducing computational costs. Future studies also can be done and applied to other types of medical images on multiple anatomical structures.

Reference

Pattanaik, P.A., 2022, May. Automated Segmentation for Knee Joint MRI Images Using Hybrid UNet+ Attention. In 2022 Trends in Electrical, Electronics, Computer Engineering Conference (TEECOC) (pp. 56-61). IEEE.



Dr. Anna Rostomyan
Lecturer

Areas of expertise:

Neuropsychology of Emotions, Emotional Intelligence, Emotion Management, Neuroleadership

SUSTAINABILITY / MANAGEMENT

Sustainable Human Capital Management

In today's globalized and capitalized world, there is an urgent need for a sustainable management for organizations to perform efficiently and stay in the loop.

Sustainable management takes the concepts from sustainability and synthesizes them with the concepts of management.

Sustainability has thence three branches: *the environment, the needs of present and future generations, and the economy.*

So, it actually refers to four distinct areas: human, social, economic and environmental – known as the four pillars of sustainability.

- Human sustainability.
- Social sustainability.
- Economic sustainability.
- Environmental sustainability.



The four pillars of sustainability [link](#)

Social sustainability aims to preserve social capital by investing and creating services that constitute the framework of our society. The concept accommodates a larger view of the world in relation to communities, cultures, subcultures, and globalisation in general.

Economic sustainability aims to maintain the capital intact. If social sustainability focuses on improving social equality, economic sustainability aims to improve the standard of living.

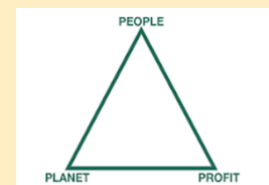
Environmental sustainability aims to improve human welfare through the protection of natural capital (e.g. the flora and the fauna, air, water, soil, minerals, etc.). Initiatives and programs are defined environmentally sustainable when they ensure that the needs of the population are met without the risk of compromising the needs of our future generations.

Human sustainability is my favourite one which aims to maintain and improve the human capital in the society. Investments in the health and education systems, access to services, nutrition, knowledge, and skills are all programs under the umbrella of human sustainability. Since natural resources and spaces available are limited and there is a need to balance continual growth with improvements to health and achieving economic wellbeing for everyone, human sustainability is also a very crucial aspect in sustainable management.

So, when we speak about human capital, we mainly speak about people endowed with not only rational thinking, but also with diverse emotions, feelings, beliefs, desires, aspirations, and motivations, since in case we humans feel that these aspects are also taken into consideration, we actually feel more valued, appreciated and cherished, which puts us in a good mood and makes us feel better, which results in performing even much better.

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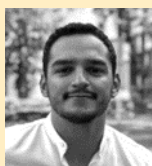
Thence, the 3Ps of sustainability are a well-known and accepted business concept. The Ps refer to **People**, **Planet**, and **Profit**, also often referred to as the triple bottom line. So, sustainability has the role of protecting and maximising the benefit of the 3Ps.



Therefore, though sustainable management is very crucial in terms of protecting the planet like Mercedes Benz does in using the skin of mushrooms in building the coverage of the car interiors instead of using real leather from animal skin, it is highly imperative to also lead a sustainable management that has in its focus the people in any organization, also taking into consideration their special needs and wishes.

This will undoubtedly enhance their labour output, which will make them perform in organizations better and more efficiently and for a much longer run.

Besides, last but not least, taking into account both the planet and the people will result in achieving much more profitable outcomes, which the whole organization will resultantly surely benefit from.



Flavio Andrew Santos
Lecturer

Areas of expertise:

Behavioral Economics in Tourism, Behavioral Pricing, Decision Making, Revenue Management

MONTH REPORT

BSBI hosts Café Scientifique 16.0

On Tuesday 19 September, the Berlin School of Business and Innovation proudly hosted Café Scientifique 16.0 centred around the theme, 'The Future of Food: Alternative Proteins as a Multi- Problem Solution and a Unique Opportunity'. This engaging event featured guest speaker Jens Tuidler, Chief Strategy Officer at ProVeg International.

Facilitating the insightful discussion was Flavio Andrew Santos, Lecturer and the Café Scientifique Coordinator at BSBI. Participants embarked on a journey to discover more about alternative proteins and how to address the challenges stemming from evolving dietary habits and food systems. They explored innovative approaches to overcome these challenges, discussed the profound implications for sustainability, and uncovered exciting business prospects in this emerging field.

Jens Tuidler shared his valuable perspective, emphasising: "The production of high-value fruits and vegetables would provide greater opportunities for smallholders and family farmers and ProVeg International is committed to that!" He further noted, "The food system transformation can become a multi-problem solution for the environment, health, and various sectors and ProVeg is promoting these solutions with our products."

In an era of rising global demand for sustainable food sources, alternative proteins have emerged as a catalyst for transformation. They not only provide answers to pressing environmental and healthcare challenges but also ignite a culinary revolution, creating a world brimming with healthier, compassionate, and sustainable plant-based options. Café Scientifique events stand as pillars of opportunity for BSBI students, offering them the chance to engage with industry luminaries, express their perspectives, challenge their preconceptions, and gain invaluable insights into the inner workings of global enterprises.

You can check the full event on: [YouTube](#)



Dr. Gemma Vallet
Lecturer

Areas of expertise:

Areas of expertise: Digital Branding & Marketing / Marketing Direction & Strategy/ Innovation in Advertising & Media / eCommerce

DIGITAL BRANDING/NFTs

Where Does the Beauty of NFTs reside?

The beauty of this relationship between branding and NFTs lies in the ability of brands to drive and promote art, new talent, and new artistic disciplines.

In today's digital economy it is possible to turn any object into an NFT and sell it. So where is the value of NFTs if anything can be transformed into NFTs?

An NFT can be a unique work of art, or a copy that can be reproduced ad-infinitum, although by using blockchain technology you can track who owns the NFT digital piece and therefore guarantee ownership, originality, and authorship of the work.

An NFT or "non-fungible token" can technically contain anything digital, including drawings, animated GIFs, songs, or video game elements.

The irruption of brands into the world of NFTs does not surprise us, although most conversations about NFTs focus on digital art and the creation of a new or renewed art market.

When a visual artist sells us an NFT we are the authorised owners of this work, which is unique, and these works, again, are bought using blockchain technology and paid for with cryptocurrencies, (although more and more means of payment are accepted). The buyer thus has a digital certificate which contains all the details of the creator and the creation (the sales token, which is a blockchain code).

As has always been the case with works of art, there are reproductions, although the one that has the most value is the work that is certified as original. In numbered editions, the lower the number, the higher the value (i.e. number one being more valuable than, say, number nine).

Also, with certain kinds of works such as photography and digital art there may be not clearly defined "original".

The mandatory reflection, if NFTs guarantee the value of the artwork to both the digital artist and its owner, why are trademarks, advertising and marketing entering the territory of NFTs? Why is NIKE acquiring a studio to create NFTs for its shoe models? Why does Burberry create NFTs of a deer? (The deer is a mascot of the iconic British brand that enjoys a large fan base in China). Or why is anyone willing to pay €3,000 for the NFT of a ghost-shaped Gucci image from the GucciGhost collection?

The irruption of brands into the world of NFTs does not surprise us, although most conversations about NFTs focus on digital art and the creation of a new or renewed art market. The NFT art market has been developing its own ecosystem since 2021, which is characterised by:

- Exclusive events on NFTs to showcase the pieces and artists of the moment, events that work in the style of art biennials and that today adopt an almost obligatory hybrid event format, ie face-to-face events and online.
 - NFT collecting is emerging and growing exponentially today.
 - Online communities dedicated to NFTs are key to the growth of this new market, as is the role that communities play in the field of cryptocurrencies.
 - Galleries are beginning to allocate spaces dedicated exclusively to NFTs both online and physically, on screens in gallery spaces.
 - Newly created auction houses and traditional houses like the famous Sotheby's encourage the purchase of NFTs.
 - NFT's art critics and influencers have joined this revolution in the art world.
 - And among other agents, digital artists clearly have in the NFT's a guarantor to disseminate, distribute and market their own work; the rules of this new market allowing them to operate whilst cutting out the middle man.
- And what do brands do in the NFT art territory? Get in on the trend and innovate by adapting this new format into their marketing and communication, allowing them to articulate a narrative of a different kind of visual branding. Connect with an audience eager for novelty, innovation and culturally educated in this new art. This is the case of the luxury brands that in China have found a millennial generation culturally educated in this new art environment and who value NFTs, and other avant-garde digital art, and are ready and willing to pay for it.

Digital branding has a wonderful opportunity in NFTs, almost an obligation, to adopt them to incorporate the new canons of cultural and visual beauty into their language.

Entering the brand territory of art, a territory that advertising has adopted and vice versa, the artist has seen in advertising and brands a reason for artistic reflection and transgression.

Sponsorship. Brands have a unique opportunity for NFT artists to renew and print an innovative air in their brand and institutional communication through emerging talent. Digital branding has a wonderful opportunity in NFTs, almost an obligation, to adopt them to incorporate the new canons of cultural and visual beauty into their language. The beauty of this relationship between branding and NFTs lies in the ability of brands to drive and promote art, new talent, and new artistic disciplines.

Article originally published in April 2022, at VIA Empresa; a leading Catalan Spanish newspaper with headquarters in Barcelona, specialised in economics, innovation, and startups.

Original source of the article: [link](#)

FROM OUR STUDENTS



Artem Lomakin
CUC MBA master

Areas of expertise:

MBA, International Relations, Global Governance, Secure Governance

EDUCATION

The Transformative Role of Cultural Exchange Among MBA Students

"The end point is not a finale, but an opportunity to see things in a new way."
— Henry Miller, writer

In today's globalized world, businesses operate on an international scale, and the need for leaders with a deep understanding of diverse cultures, markets, and perspectives has never been greater. Cultural exchange among MBA (Master of Business Administration) students plays a crucial role in preparing the next generation of business leaders for the challenges and opportunities of our interconnected world. Cultural exchange exposes MBA students to different worldviews, traditions, and ways of thinking. This exposure fosters open-mindedness, empathy, and a broader perspective that is invaluable in global business contexts. Such research can be largely demanded in further materials on the training of young scientists in the field of IBA.

Enhancing Communication Skills:

Effective communication is at the heart of successful leadership. Interacting with peers from diverse backgrounds hones language skills, both verbal and non-verbal, and teaches the art of cross-cultural communication, a critical skill in today's multicultural workplaces.

Cultural Intelligence:

Just as emotional intelligence (EQ) and intellectual intelligence (IQ) are crucial, cultural intelligence (CQ) is equally important in today's business world. Cultural exchange allows students to develop CQ, which involves an awareness of and adaptability to different cultural norms and practices.

Networking Opportunities:

Building a global network is a significant benefit of cultural exchange. MBA students connect with peers from around the world, creating a valuable network of contacts that can prove beneficial throughout their careers.

Real-world Learning:

Cultural exchange isn't just about theory; it's about real-world experience. Students engage in hands-on learning, applying their cultural knowledge to practical business scenarios, preparing them to navigate the complexities of international markets.

In this way we can get practical examples of our work:

Case Studies: MBA programs often include case studies that examine real-world business challenges. Cultural exchange provides students with the insight to analyze these cases from diverse cultural angles, fostering innovative solutions.

Internships and Study Abroad Programs: many MBA programs offer internships or study abroad opportunities. These experiences allow students to immerse themselves in a different culture, gaining firsthand knowledge of international business practices.

Cultural Clubs and Events: on-campus cultural clubs and events promote cross-cultural understanding. Students can participate in cultural festivals, language exchange programs, and international business forums, further enhancing their cultural competence.

Cultural exchange among MBA students is not merely a nice-to-have but a necessity in today's global business landscape. It equips future business leaders with the skills and mindset required to navigate the complexities of international markets, communicate effectively across cultures, and build diverse, global networks. As MBA programs continue to recognize the importance of cultural exchange, they empower their students to become culturally competent, globally aware, and highly effective leaders in an increasingly interconnected world. From my point of view, this kind of research is unique and enlightening, and can help every young professional who is looking for a path to progress and development.

Links: [Link1](#), [Link2](#), [Link3](#), and [Link4](#).



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Areas of expertise:

Neuroscience, Neuropsychology, Cognitive Science, Cognitive Psychology

PSYCHOLOGY

Childhood Trauma: understanding the effects and coping techniques

Adverse experiences during childhood can impact the emotional, psychological, and physical development of a person, later in the life. These traumatizing experiences and events are referred to as childhood trauma or adverse childhood experiences. The traumatic experiences can include neglect, physical and emotional abuse, witnessing violent crimes, car accidents and other natural disasters. Childhood trauma or adverse childhood experiences can happen to anyone, the experiences of which can continue to impact human life's overall expressions of themselves in the world. It is literally like a pool of consciousness which is fragmented into so many little pieces, stuck in the disempowering coping mechanisms and emotions that the adult has no control over. Few of the underlying causes of childhood trauma are discussed as under:

- Abuse: A child may sustain severe emotional wounds because of physical, emotional, and sexual abuse from close caregivers, relatives, and other trusted members in the society. The betrayal of trust in these relationships can cause childhood trauma.
- Neglect: When a child's fundamental physical and emotional needs are repeatedly unmet. It can be just as harmful as abuse and lead to emotions of insecurity and worthlessness later in his life.
- Witnessing violence: Even if they are not direct victims, children who witness domestic violence or community violence may suffer from trauma. A persistent feeling of fear and detachment can result from these experiences.
- Accidents and Natural Disasters: Exposure to potentially fatal accidents or natural disasters such as house fires, earthquakes, and car accidents.
- Loss and Separation: Losing a loved one or separation from a loved one at an early age resulting from divorce or abandonment.

Childhood trauma can have negative effects on physical, emotional, and psychological health.

- Emotional impact: Trauma experienced during childhood can cause severe and enduring emotional distress that can include signs of anxiety, depression, and post-traumatic stress disorder (PTSD).
- Physical well-being: several health problems, including autoimmune diseases, chronic pain, and a higher risk of heart disease. Children who experience trauma may have behavioural issues like aggression, withdrawal, and self-destructive behaviour. They might also have a problem with drug abuse.
- Trauma can affect the brain development, making it more difficult to focus, remember things and solve problems. They might have trouble forming security and trust in a relationship.

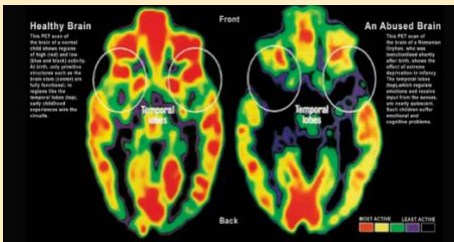


Figure: the effect of childhood trauma on the brain [link](#)

It requires time, effort, and professional assistance to heal the “inner child” affected by childhood trauma. However, recovery is possible. Therapies like trauma-focused cognitive behavioural therapy and psychotherapy help minimise the problems to a large extent.

Eye Movement Desensitization and Reprocessing (EMDR) have wide research that shows positive feedback from trauma recovered clients,

A Supportive Relationship with other family members and support groups helps in creating and preserving supportive relationships and is a crucial source of emotional solace and validation.

Self-Care therapy and self-care techniques like routine exercise, a balanced diet and mindfulness exercises can help people manage the physical and emotional effects of trauma.

In conclusion, childhood trauma is a complicated and prevalent subject that can have a significant impact on a person's life. It can have many different root causes and it can have many different forms. With the help of therapeutic techniques, social networks, self-care practices and a dedication to comprehending and addressing the effects of trauma, recovery and healing is possible.

By spreading awareness about such sensitive issues, we can help create a society where people who have experienced trauma can find the support.



All students are kindly invited to send their original texts to the Associate Editors: either to Dr. Farshad Badie to the email address: farshad.badie@berlinsbi.com or to Dr. Anna Rostomyan to the email address: anna.rostomyan@berlinsbi.com



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