The Journal of Multidisciplinary Research (TJMDR)
(Online ISSN: 2583-0317)

DOI: https://doi.org/10.37022/tjmdr.2023.sc3

Edited By

Prof. (Dr) Alpana Srivastava,
Dr Anuradha Misra
Dr Nimish Gupta

Conference Proceedings

INTERNATIONAL SYMPOSIUM ON MULTIDISCIPLINARY APPROACH FOR DATA MANAGEMENT

September 01, 2023

Organized by

Amity Business School, Lucknow
&
Amity School of Engineering & Technology

Point wise Outcome Report:

Data Management is a complex and interdisciplinary field that involves various domains such as computer science, information technology, data science, business and more. An international symposium provides a platform for experts from different disciplines and countries to come together, share their knowledge and collaborate on addressing common challenges. The purpose of this event is to explore and experience possible areas of collaborative research work in the field of Data Sciences and interdisciplinary applications including engineering and management. The symposium is to promote joint collaborative research in the area of Data Science, Management and Engineering.

The event has been organized to network with leading experts in the area of Data Sciences from Bond University Australia with whom AUUP has signed an MOU. It is also intended to explore possible areas of interdisciplinary research and collaborative research activity for post graduate and PhD guidance. There are three international speakers and approx. 20 international participants are expected.

After the lighting of the lamp, Prof. (Dr) Alpana Srivastava, Professor Amity Business School, Lucknow, elaborated her deliberation on the theme of the symposium.

The keynote address was delivered by Prof.(Dr.) Kuldeep Kumar, Bond University, Australia. He obtained Ph.D. in Statistics from the University of Kent, Canterbury. He has taught at the Indian Institute of Management and National University of Singapore before joining Bond University in 1993. He is a Fellow of the Royal Statistical Society and a Chartered Statistician and currently he has been awarded Chartered Scientist by Science Council. He has won the Commonwealth Scholarship Award, CEC Post Doctoral Fellowship Award and Young Statistician Award of the International Statistical Institute. He is also winner of the Bond-Oxford Fellowship in 1997 and Australia-Taiwan exchange program award in 1998 and 2007.

The chief Guest of the event was Prof.(Dr).Chandra Kumar Dixit,M.Sc, M.Phil, Ph.D. PDF, D.Sc (USA) FICS, FPAS, MMR (Singapore) known personality, who has more than 25 years of teaching and research experience. He has served as Director, Dean, Professor in renowned institutes and Universities. Prof. C.K. Dixit is currently working as a Director, Engineering & Technology & Dean, Faculty of Science & Technology Dr. Shakuntala Misra National Rehabilitation University Mohaan Road, Lucknow.

Planery speaker of the vent was Dr Shalabh completed his Ph.D in Mathematical Statistics from University of Lucknow in the year 1996. Thereafter, he completed his Post Doc from University of Pittsburgh, USA followed by a second Post Doc Degree in Statistics from Ludwig Maximillians University, Munich, Germany in the year 2007. Received the **National Award for e–Governance (Silver Award)** in 2022 under the Category "Outstanding research on Citizen Centric Services by Academic/Research Institution" from the Department of Administrative Reforms & Public Grievances, Ministry of Personnel, Public Grievances & Pensions, Government of India. Dr Shalabh explained the role of statistics in predictive analytics. Mathematics involves randomness

which is to a limit controlled by statistics. Statistical tools like frequency distribution, descriptive statistics, graphical tools are used to perform analysis.

Next speaker was Dr. Milind Tiwari . He is working as a Research Fellow in Financial Crime, Charles Sturt University from August 2022. He completed his Doctor of Philosophy in Forensic Accounting from Bond University Dissertation on the topic "Money Laundering: Facets Associated with Detection and Magnitude of the Problem" in the year 2021. He is a Certified Cryptocurrency Investigator (CCI), Blockchain Intelligence Group (BIG). Also he is a Certified Anti–Money Laundering Specialist (CAMS), Association of Certified AntiMoney Laundering Specialist (ACAMS).

Dr Varun Kumar is the AWS APN Ambassador from last four years. He has been awarded top contributor ASEAN in APN Ambassador Program 2020. Also he has been nominated as technical expertise blogger in ASEAN from AWS 2020. Benefited more than 5000 Professional in different training aspect. He is the DevOps Champion in several Training attended by AWS in Astro. Mr. Varun is a versatile technology professional with over 10 years of experience in DevOps, DevSecOps, and Cloud Architecture. Skilled in Software Configuration, Build/Release Management, and designing and managing cloud infrastructure for diverse industries such as Financial Services (Banking, Insurance), Healthcare, Government, Automobile, Media, Service-based, and Product-based sectors. He has Strong expertise in collaborating with clients to provide cloud solutions and executing implementations.

Dr. Praveen Kumar Misra is working as Assistant Professor and coordinator in the Department of Mathematics and Statistics at Dr. Shakuntala Misra National Rehabilitation University Mohaan Road Lucknow. He secured Master of Science in Statistics from the Department of Statistics, University of Lucknow, Lucknow, Uttar Pradesh, India. He secured Ph.D. in Statistics from the Department of Statistics, University of Lucknow, Lucknow, Uttar Pradesh, India. He is in teaching profession from more than 15 years.

Dr. Dhirendra Pandey completed his Ph.D in Computer Science from SCSIR, DAVV, Indore in the year 2012. He is working as a Head, Department of Information Technology at BBAU, Lucknow. He research interests include Software Security, Software Engineering, Cloud Computing and Machine Learning. He has been granted a project worth 10.44 lacs by CST titled "Analysis of the Impact of Ergonomic Deficiency in Computer Workstations at Government Offices of Uttar Pradesh

The symposium provided an excellent platform to the researcher, academicians and industry peoples. A total of 450 abstract/manuscripts were received, and 350 manuscripts were reviewed. Out of these more than 115 papers were accepted for presentation and publication.4 Plenary Talks, 05 Keynote Talks and 04 Parallel Technical Sessions were conducted during the FLUTE 2023.

Dr. Anuradha Misra, Assistant Professor, Amity School of Engineering & Technology extended the vote of thanks.

Event Photographs

ABSTRACTS

AI-ENABLED SEMANTIC WEB SEARCHING

Abdullah Saeed[1], Prof. (Dr.) Namrata Dhanda[2]

[1]Student, Amity School of Engineering and Technology, Amity University Uttar Pradesh, Lucknow, India

[2] Professor, Department of Computer Science and Engineering, Amity University Uttar Pradesh, Lucknow, India

abdullah.saeed1724@gmail.com, ndhanda@lko.amity.edu

This research paper presents a comprehensive study on the development of an AI-enabled Semantic Search application using a Full Stack approach. The project integrates cutting-edge technologies, such as Next.js, Langchain, Pinecone, and ChatGPT, to create a robust and efficient information retrieval system. The Methodology begins by setting up the essential imports and utility functions for Langchain and Pinecone. Diverse data types are then loaded seamlessly using specialized loaders. The project's core involves the creation of a Pinecone index and the successful upload of documents, which establishes a powerful and accessible database. The application's user interface is enriched with advanced UI features, such as auto-suggestion functionality and a natural language query parser. These features enhance the aesthetic appeal and interactivity of the platform, making it easier for users to navigate and formulate queries. The paper also discusses the challenges of developing an AI-enabled Semantic Search application, such as the need to deal with large volumes of data and the complexity of natural language processing. The paper also proposes solutions to these challenges, such as using distributed computing and machine learning techniques. The culmination of these efforts is a comprehensive Semantic Search application that leverages the capabilities of AI and modern web technologies to deliver an immersive, efficient, and personalized information retrieval experience. This research contributes to the advancement of Full Stack development practices and demonstrates the potential of integrating AI technologies to enhance user interactions with data-rich platforms.

Keywords: Artificial Intelligence, Semantic Search, Full Stack, Next.js, LangChain.

ARTIFICIAL INTELLIGENCE (AI) FOR DATA MANAGEMENT

Abhinav Pratap Singh
Department of Computer science and Engineering

Artificial Intelligence (AI) is a rapidly evolving field that aims to create systems capable of performing tasks normally requiring human intelligence. These tasks include learning, understanding language, recognizing patterns, problem-solving, and decision-making. AI has the potential to transform various sectors, including healthcare, education, transportation, and entertainment, by automating tasks and improving efficiency.

However, AI also poses ethical and societal challenges. Questions about privacy, job displacement, and the potential misuse of AI technologies are prevalent. There's also the concern of AI systems making decisions without human oversight, raising issues of accountability. Therefore, as we continue to develop and integrate AI into our lives, it's crucial to address these challenges and create frameworks for responsible AI use.

Despite these challenges, the potential benefits of AI are vast. It can help us analyze complex data, make accurate predictions, and even aid in scientific discoveries. As we move forward, it's clear that AI will play an increasingly significant role in shaping our future.

DRIVERS OF CORPORATE SOCIAL RESPONSIBILITY (CSR) IN INDIA: WITH SPECIAL REFERENCE TO SOCIO-CULTURAL & RELIGION

Dr Shailja Dixit,
Associate Professor Amity Business School, Amity University Lucknow

Abstract:

India is the country of socio - cultural diversity. Every society & culture existing in India is full of values, ethics & morality regarding the good deeds. The exhaustive survey of CSR literatures from Indian philosophical perspectives, observes many studies based on the socio cultural & religious aspects. It has been observed all these philosophical views & concepts covering socio cultural & religious backgrounds have received attention in the field of corporate social responsibility (CSR). It has also been observed that almost all the views have fully explored in context of CSR. Hence CSR offers an important strategic tool for enhancing firms' competitive advantage so with the analysis of different cultures existing in the Indian setup this chapter tries to find out the drivers of CSR here. This study utilizes the hermeneutics, a qualitative research methodology which involves the in – depth study, critical analysis, thoughtful understanding & explanatory interpretation of the concepts of CSR originated from diversified Indian society

&culture. In a nutshell, from these viewpoints & philosophies of a different culture, corporate social responsibility is seen from an inside-out perspective.

Key Words: Corporate Social Responsibility (CSR),Socio - Cultural Driver, Religious Driver, Dharma & Karma.

TOOL FOR CHEMICAL INVENTORY MANAGEMENT

Dr Monika Kamboj
Amity School of Applied Sciences, Amity University, Lucknow campus, Uttar Pradesh

The chemicals are found in academic chemical laboratories, R&D centers, and in chemical industries. So, it is of prime importance to provide common chemical information to all for using and storing chemicals. Numerous inventory software is available for this purpose. One such is a chemical management system (CMS). CMS is a free tool for inventory management of chemicals for chemical laboratories. CMS is an effective system of management of chemicals along with their security. It is a computer-based management system that is simple and user-friendly and even alerts the user regarding additional safety measures of chemicals.

DEVELOPING EFFECTIVE COMMUNICATION CHANNELS FOR DATA MANAGEMENT

Trupti Mishra
Assistant Professor, Amity School of Languages, Amity University, Lucknow Campus

Abstract

Communication is essential for delivering a huge amount of information. Without effective communication, the information can be lost, misunderstood, or misinterpreted. This can lead to problems such as poor decision-making, wasted resources, and even legal liability. Effective communication channels ensure that the information is understood by the intended audience and helps to build trust and credibility. A good communication channel helps in proper collection and management of data to be further used for research. By effectively communicating data, organizations can ensure that the right people have the right information at the right time. This can help improve decision-making, productivity, collaboration and is essential for collecting and managing authentic information. The data collected for the purpose of research may be technical and thus requires clear and lucid language for proper communication without deviating from the

main topic. This paper attempts to highlight the relevance of the right communication channels and techniques, which may be used by organizations to ensure that their information is heard and understood.

Keywords: communication, language, data, management, information

EMPOWERING DATA MANAGEMENT THROUGH DEEP LEARNING

Dr. Archana Sahai

Amity Institute of Information Technology, Amity University Uttar Pradesh, Lucknow,
asahai@amity.edu

Welcome to the era of the digital world where computers' power has its supremacy over human, human thoughts as well as human behavior. The growing practical applications of modern computer technologies is leading one or the other to incline towards these evolving techniques that not only make humans' effort less or save time but are giving a tough competition to humans themselves to replace them in their respective fields. Today, almost everyone in this world having an internet device is directly or indirectly relying on these technologies, which may include Cloud Computing, Artificial Intelligence, Machine Learning, Big Data Analytics, Cyber Security, Block chain, IoT to name a few. Big organizations, including individuals, are producing a huge amount of data every second over the internet and to handle those vigorously generating data, we need better, enhanced, and efficient computing resources both at hardware and software level.

In recent years, the exponential growth of data across various domains has led to the emergence of complex challenges in data management. Traditional methods and tools for data organization, storage, retrieval, and analysis have become inadequate in handling the sheer volume, velocity, and variety of data. This has prompted the integration of advanced technologies such as deep learning to revolutionize data management processes. Deep learning, a subset of machine learning, is characterized by its ability to automatically learn hierarchical representations of data through neural networks with numerous layers. This abstract explores the application of deep learning techniques in addressing key aspects of data management, including data categorization, data deduplication, data compression, and data quality enhancement.

With the introduction of Deep Learning, it has become more efficient to work with a huge amount of data, whether structured or unstructured, which was not possible in the case of machine learning. That is, it was not the perfect approach where input and output were large and were present in multi-dimensions, and handling and processing such data becomes very complex and resource exhausting. This is termed as the "curse of dimensionality". The advancement in

deep learning technology has made it possible to handle multi-dimensional data present in the real world.

AI FOR DAILY TASK CUSTOMIZATION AND AUTOMATION

Acand Mishra, Dr Deepak Arora

Department of Computer Science and Engineering, Amity School of Engineering and Technology , Lucknow Campus , Uttar Pradesh, acand.mishra@s.amity.edu, darora@lko.amity.edu

Artificial Intelligence gained a lot of limelight in past years and with more recent advancements in the field of medicine, space and applications such as system generative AI (as in Google Bard and ChatGPT) it's now very clear how AI is naturally becoming part of our daily lives. AI systems being capable to learn and understand on their own is very friendly to be integrated with human lives on a daily basis, they can mould into daily needs such as home chores, office workloads and also in leisure activities and yet in much more This project aims to develop a service for users to customise and automate their daily tasks by integrating AI models and services. This helps users to focus on their more important tasks that require active human attention and the rest other tasks are taken care of by the system, any future changes in the users' demands can easily be enforced.

STOCK PRICE PREDICTION USING MACHINE LEARNING IN PYTHON

Adeeb Al Mizaan Khan, Garima Srivastava

Department of Computer Science and Engineering, Amity School of Engineering and Technology , Lucknow Campus , Uttar Pradesh

adeeb.khan@s.amity.edu, gsrivastava1@lko.amity.edu

Stock price prediction is the task of forecasting the future price of a stock. This can be a challenging task, as there are many factors that can affect stock prices, such as economic conditions, company news, and investor sentiment. However, machine learning can be used to develop models that can predict stock prices with a certain degree of accuracy. One popular machine learning algorithm for stock price prediction is LSTM (Long ShortTerm Memory). LSTM is a type of recurrent neural network that is well-suited for time series data, such as stock prices. LSTM models can learn to predict stock prices by analyzing historical data and identifying patterns. To use LSTM for stock price prediction in Python, you can use the Keras library. Keras is a high-level API for building neural networks. With Keras, you can easily build

and train an LSTM model to predict stock prices. This study highlights the importance of integrating analytical thinking and financial analysis as well as specialization selection and engineering techniques. These findings lead to the growth of stock price prediction and highlight the potential of machine learning to provide insights to investors and financial analysts. This research contributes to expanding the field of cost estimation using Python machine learning. The clear and supportive results of the study demonstrate the ability of machine learning models to provide insights to investors and financial analysts. Future studies can build on these findings to improve the accuracy of product prediction by improving existing models, exploring new methods, and incorporating other different methods.

AI-POWERED BLOCKCHAIN FOR METAVERSE

Aditya Singh[1], Prof. (Dr.) Namrata Dhanda[2]

[1]Student, Amity School of Engineering and Technology, Amity University Uttar Pradesh, Lucknow, India

[2] Professor, Department of Computer Science and Engineering, Amity University Uttar Pradesh, Lucknow, India

adityasolankigkp@gmail.com, ndhanda@lko.amity.edu

In recent years, the combination of Artificial Intelligence and Blockchain Technology has opened new possibilities in a variety of fields. This study investigates the integration of AI with Blockchain in the context of the Metaverse, a virtual shared place where physical and digital reality intersect. This paper begins by explaining the Metaverse and Blockchain technology, throwing light on its distinct features and relevance, to provide a full understanding. The incorporation of AI into Blockchain is examined, with an emphasis on its potential to improve data processing, automation, and decision-making in the metaverse.

The research looks into compelling use cases that demonstrate the practical applicability of AI-Powered Blockchain Technology in the Metaverse. Optimizing virtual asset management, enabling intelligent automated transactions, and facilitating immersive AI-driven experiences are among them, providing a potential technique for deploying AI-Powered Blockchain in the Metaverse, detailing how AI algorithms may evaluate and understand complicated data within the Blockchain to improve user engagement and interaction.

The study also dives into crucial issues like data privacy and security in the Metaverse. Because the Metaverse deals with huge volumes of personal and sensitive information, strong privacy safeguards are required. While this article sees a bright future for AI-Powered Blockchain in the Metaverse, it also notes potential problems, such as scalability issues and the need for standards.

These problems highlight the importance of collaboration among researchers, developers, and policymakers. Finally, this study highlights the transformative potential of combining AI with Blockchain in the Metaverse, providing a look of a dynamic and linked virtual landscape with better security, privacy, and efficiency.

Keywords: Artificial Intelligence, Metaverse, Blockchain, Security, Data Privacy, Use Cases, Virtual.

THEDIGITALFRONTIERINMENTALHEALTHFORMODERNSCHOOLS

Akkshat Srivastava, Dr. Kapil Kumar Gupta

Department of Computer Science and Engineering, Amity University Uttar Pradesh, Lucknow, India

akkshatsrivastava42@gmail.com,kapilkumargupta2007@gmail.com

In the dawn of the 21st century, educational landscapes are evolving rapidly, moving beyond traditional brick-and-mortar confines and integrating deeply with the digital realm. This study delves into an emerging facet of this digital integration—using web development tools and platforms to address and bolster student mental well-being in contemporary schools. As mental health becomes a paramount concern, with its profound impact on academic performance, peer interactions, and holistic development, there's a discernible void in effectual and wide-reaching interventions. This paper posits that digital tools offer unparalleled flexibility, immediacy, and adaptability, providing potentially transformative solutions.

Modern students, inherently digital natives, find solace and support in online realms. Through web-based platforms, schools can craft proactive, personalized, and comprehensive support systems, addressing everything from immediate crises to long-term well-being. Furthermore, the potential of emergent technologies, such as AI and predictive analytics, promise even more refined, real-time interventions.

However, the journey towards effective digital mental health integration isn't without challenges. Concerns surrounding data privacy, the impersonality of digital interactions, and ensuring sustained engagement demand attention. By analyzing pioneering endeavors globally, the research uncovers best practices, successful frameworks, and potential pitfalls. In essence, as schools stand on the precipice of this digital mental health frontier, this paper offers both a beacon and a guide, illuminating the potential pathways and ensuring the journey is both impactful and ethically sound.

ELDERLY CARE COMPANION (AN AI-BASED ANDROID APP FOR ELDERLY CARE)

Aman Gupta, Dr. Bramah Hazela

Department of Computer Science &Engineering, Amity school of Engineering &technology, Amity University Lucknow Campus.aman.gupta13@s.amity.edu

The world's population is ageing and so is the number of elderly people hence it is need of the hour to develop a solution to assist them. This paper proposes and evaluates the possibilities of an **"AI-Based Android App for Elderly Care."** The app will work to meet the demands of senior citizens by utilizing cutting-edge technology to improve their wellbeing. The software combines three essential functions to offer thorough care and assistance. In order to deliver accurate and easily available information on medications, the app makes use of the **ChatGPT API**. The AI-driven solution allows elderly users to enter pharmaceutical queries, and it provides in-depth explanations, dose recommendations, and potential interactions to ensure drug adherence and safety. The app makes use of the **ChatGPT API** to provide dietary requirements-specific nutritional insights. Users can get individualized nutritional value evaluations and meal recommendations based on their food preferences, dietary limitations, and health objectives. The software also incorporates the **YouTube Data API** to compile a selection of senior-friendly yoga and workout videos. Users can enhance their levels of physical activity and encourage a healthy lifestyle from the comfort of their homes by accessing a selection of guided workout programs. In summary, the **"AI-Based Android App for Elderly Care"** project amalgamates the power of AI and user-friendly interfaces to create an invaluable tool for elderly individuals seeking convenient access to medication information, nutritional guidance, and fitness resources. This endeavour not only fosters independence among the elderly but also fosters a sense of empowerment and improved quality of life.

Keywords: Artificial Intelligence, elderly care

ADVANCED FLIGHT FARE FORECASTING: LEVERAGING MACHINE LEARNING TO PREDICT AIRLINE TICKET PRICES.

Mohd. Ammar Khan, Dr. Shikha Singh

Department of Computer Science & Engineering,

Amity School of Engineering and Technology,Amity University Uttar Pradesh,Lucknow Campus, mohd.khan17 @s.amity.edu , ssingh8@lko.amity.edu

The aviation sector is dynamic and always evolving, and the fluctuating cost of tickets makes it difficult for travelers to plan their trips affordably and plan a trip economically. The differences in the air ticket prices exists so much so that always it has been observed that various travelers travel in the same flight with varied ticket prices. This leads to a situation of

under booked flights and high consumer dissatisfaction which ultimately have a negative financial impact on the airline business. Timely flight price forecasting would aid airlines in planning their operations and assembling the resources essential to impact a particular consumer section level for a specific route. With a motive to find the model with the lowest mean absolute error when forecasting the costs of a journey, this work tries to offer a model that effectively incorporates the variation amongst many elements determining the price of an airfare. Prices for several airlines' flight tickets were provided for the dataset in this study, which was obtained from Kaggle. The dataset was engineered efficiently using various feature engineering and selection methods. Afterwards, 80:20 data was divided as training and test data respectively. The model was trained using Random Regressor Algorithm. Model obtained a Normalized Root Mean Square Error of 0.06. Further, an unseen dataset was fed into the model to predict the flight ticket prices.

ARRHYTHMIA DETECTION USING CNNS

Aniketh Mishra[1], Prof. (Dr.) Namrata Dhanda[2]

[1]Student, Amity School of Engineering and Technology, Amity University Uttar Pradesh, Lucknow, India. ndhanda@lko.amity.edu

[2] Professor, Department of Computer Science and Engineering, Amity University Uttar Pradesh, Lucknow, India. anikethmishra3415@gmail.com,

Arrhythmia detection is critical for prompt medical action. This research paper goes into the use of Convolutional Neural Networks (CNNs) for accurate arrhythmia identification, which represents a significant leap in medical signal processing. The study examines existing literature on arrhythmia detection methods and highlights the shortcomings of previous strategies, laying the groundwork for the suggested CNN-based solution.

The study starts with a look at data collection and preparation, offering light on the rigorous curation of electrocardiogram (ECG) data. The data is subjected to extensive preprocessing, such as normalization, noise removal, and augmentation, to ensure its suitability for model training. The detailed design of the CNN model is an important component of this report. The model's design reasoning is rigorously explained, including layer composition, filter sizes, and pooling techniques. The diagrammatic portrayal aids in comprehending the CNN's complicated structure.

Training and evaluation are thoroughly covered, including details on the loss functions, optimization algorithms, and hyper parameters used. The model's performance is successfully gauged using a variety of assessment criteria such as accuracy, precision, recall, and F1-score.

The research also emphasizes the model's interpretability, adopting approaches to display the CNN's inner workings and the features it learns from ECG data.

The discussion converges on the research's clinical value, matching the model's outcomes with medicinal applications. A comparative analysis highlights the proposed CNN approach's merits and drawbacks in comparison to older approaches. The research emphasizes CNNs' potential to revolutionize arrhythmia diagnosis while also recognizing obstacles such as data scarcity and model complexity.

This research incorporates ethical issues, addressing essential topics such as privacy, bias, and the hazards connected with medical AI. The study concludes with a comprehensive conclusion that summarizes the key findings and their significance for the medical field. Finally, this paper provides a comprehensive framework for using CNNs to detect arrhythmias, giving opportunities for future research and emphasizing the ethical dimensions of breakthrough medical technology.

Keywords: Arrhythmia, CNNs, Model Architecture, Data Augmentation, Evaluation, Interpretability, Healthcare

MULTIDISCIPLINARY APPROACH FOR DATA MANAGEMENT

Ankita Kumari and O P Singh
akumari@st.amity.edu, opsingh@amity.edu
Department of Electronics & Communication Engineering
Amity School of Engineering & Technology (ASET)
Amity University Uttar Pradesh, Lucknow campus

Data management involves the processes of gathering, arranging, safeguarding, and retaining an organization's data, enabling its analysis. Data management serves various functions within an organization's data landscape, streamlining crucial operations and reducing time demands. Through efficient data management, individuals throughout an organization can locate and retrieve reliable data to address their inquiries. The data management procedure encompasses a blend of diverse functions, working together to ensure the precision, availability, and usability of data within corporate systems. With the potential to enhance the prominence of an organization's data resources, data management simplifies the process for individuals to swiftly and assuredly locate the appropriate data for their analysis. Also the capacity to safeguard the organization and its personnel against data losses, thefts, and breaches by employing authentication and encryption mechanisms, data management enables organizations to efficiently expand data and accommodate usage scenarios through consistent processes aimed at maintaining up-to-date data and metadata.

CRUCIAL FACTORS IN ADOPTING A CROSS-DISCIPLINARY APPROACH TO DATA MANAGEMENT

Anurag Prasad
Amity School of Applied Sciences, Amity University Uttar Pradesh, Lucknow

A multidisciplinary approach for data management refers to the practice of incorporating expertise and methodologies from various fields and disciplines to effectively handle and utilize data. In today's data-driven world, this approach has become increasingly important to address the complexities and challenges associated with data in various domains. Some key points to consider about a multidisciplinary approach for data management are Diverse Expertise, Holistic Understanding, Problem Solving, Data Governance, Ethical Considerations, Interdisciplinary Research, Innovation and Challenges. Multidisciplinary data management involves collaboration between professionals from diverse backgrounds, such as data scientists, computer scientists, domain experts, statisticians, and ethicists. Each discipline brings a unique perspective and skill set to the table. Holistic Understanding approach recognizes that data is not just a technical resource but also has social, ethical, and business implications. A multidisciplinary team can provide a more comprehensive and holistic understanding of data and its impact. Multidisciplinary teams can tackle complex data-related problems more effectively. They can combine technical data analysis with domain-specific knowledge to find innovative solutions. Effective data governance is crucial for organizations. Multidisciplinary teams can develop robust data governance frameworks that consider legal, ethical, and security aspects alongside technical data management. With the increasing concern over data privacy and ethics, a multidisciplinary approach ensures that ethical considerations are woven into data management practices. Ethicists can help guide decisions on data collection, usage, and sharing. In academia, multidisciplinary approaches promote research that bridges traditional boundaries. For example, researchers in healthcare might combine data analysis techniques with medical expertise to improve patient outcomes. Cross-pollination of ideas from different fields often leads to innovation. In data management, this can result in the development of new tools, techniques, and strategies for handling and deriving insights from data. While a multidisciplinary approach offers numerous benefits, it can also present challenges such as communication barriers between experts from different fields, differences in terminologies, and the need for effective team coordination. In summary, a multidisciplinary approach for data management recognizes that the effective use of data requires expertise from multiple domains. By leveraging the strengths of various disciplines, organizations and researchers can better navigate the complexities of data, make informed decisions, and drive innovation while ensuring ethical and responsible data practices.

LIVELIHOOD SECURITY THROUGH DATA MANAGEMENT

Dr Arun Bhadauria
Program Leader UG Management Program, Amity Business School, Lucknow
Contact: 7379198610 Mail: abhadauria@amity.edu; drarunbhadauria@gmail.com

Livelihood security is defined as adequate and sustainable access to income and resources to meet basic needs (including adequate access to food, potable water, health facilities, educational opportunities, housing, time for community participation and social integration). Livelihoods can be made up of a range of on-farm and off-farm activities which together provide a variety of procurement strategies for food and cash. Thus, everyone can have several possible sources of entitlement which constitute its livelihood. These entitlements are based on the resource endowment and its position in the legal, political, and social fabric of society (Drinkwater and McEwan, 1992). India has experienced rapid growth and development in the past years across various domains. However, proportion of skilled work force is still lagging significantly, which become more stringent with gender and regional disparities. HDFC Bank Parivartan is devoting its energies to overcome this hurdle by initiating skill development programmes across the nation. Under this initiative, the SWADHAAR Computer Training Course at Ponsara Centre equips tribal people and EWS women to join the workforce with core skill training development (csrbox.org/India 2022).

Livelihood skills include technical and vocational abilities (carpentry, sewing, computer programing, etc.); skills for seeking jobs, such as interviewing strategies; and business management, entrepreneurial, and money management skills (inee.org 2023). Data management skills are the abilities you use to effectively manage and use information. Data management skills involve looking for patterns, understanding database design concepts and being able to participate in short and long-term planning about database projects. There are many different kinds of database management systems. The most common ones include relational database management systems (RDBMS), object-oriented database management systems (OODMBS), in-memory databases, and columnar databases.

Examples of data management skills

- Data analysis
- Account and file management
- Managing database software
- Database planning and design
- Data integrity
- Communication
- Business intelligence
- Pursue additional education.

The structural vulnerability of livelihood systems in the rural areas such as skewed distribution of resources, subdivision and fragmentation of land holdings, poor connectivity and of course low level of awareness and education led to poor and non-liveable dwellings. Focusing and deliberating upon improved technology of production and processing to stabilize yields through diversification into agro-ecologically appropriate crops and natural resource management measures is brazenly required.

Keywords: Livelihood, Data Management, Skill Development

SMART FARMING USING IOT AND MACHINE LEARNING

Mr. Aryan Verma, AIIT, Amity University, Lucknow
Dr. Nidhi Srivastava, Asst. Professor, AIIT, Amity University, Lucknow

The fusion of Machine Learning (ML) and Internet of Things (IoT) technology has resulted in smart farming, sometimes called precision agriculture, and has caused a profound transformation in the agricultural sector in recent years. This research paper examines a wide range of innovative smart farming solutions that make use of IoT technology and machine learning to transform traditional agricultural methods. IoT sensors can be used to keep an eye on irrigation systems and soil moisture levels and ML models can make use of this data to improve irrigation schedules and reduce water waste. Based on images or other data, ML models can be used to detect pests and diseases in plants. With the aid of this knowledge, farmers may be able to control pests and diseases even before such losses occur. Nutrient levels in the soil can be measured using IoT sensors which ML models can utilize to suggest the quantity and timing of fertilizer applications. Also, IoT sensors can be used to track cattle's movement and keep an eye on their well-being. Farmers that use this information may make sure that their livestock is secure and healthy. The dynamic landscape of smart farming in which machine learning and IoT technologies are shaping agriculture's future, is paving the way for more sustainable, efficient, and productive agricultural practices.

COMBINATION OF WEB DEVELOPMENT AND DATA SCIENCE

Ashaish Pratap Singh, Vineet Singh

Department of Computer Science and Engineering, Amity University Uttar Pradesh, Lucknow, India

The goal of this paper was to gain fundamental information on a topic which is a combination of data science and web development that can be used together in an application. In this paper I

have researched how data science and web development can be combined here I have researched on data science skills like Mathematics and statistics, Machine Learning, Data Manipulation and Analysis, Data Visualization and Big Data Processing. I have also researched on web development skills like HTML, CSS, and JavaScript. Moreover , I have explored about integration skills like API development , data pipelines and Cloud Platforms and additional skills like Version Control Problem-Solving and Critical thinking. I have used dashboard which is web based that will display real time data in the forms of graphs ,heatmaps and charts and then I have described how production optimization and quality control will be affected in any business sector because of using such combination. I have also studied how continuous improvement will take place and data and security access control can be used to prevent unauthorized access.

ISSUES AND CHALLENGES IN ADOPTION OF MACHINE LEARNING AND BLOCKCHAIN IN HEALTHCARE

Ayush Verma[1], Prof. (Dr.) Namrata Dhanda[2]

[1]Student, Amity School of Engineering and Technology, Amity University Uttar Pradesh, Lucknow, India, ndhanda@lko.amity.edu

[2] Professor, Department of Computer Science and Engineering, Amity University Uttar Pradesh, Lucknow, India. ayushavrs1231@gmail.com,

Machine learning is a developing technology that makes it possible for computers to learn autonomously from previous data. Machine learning uses a variety of techniques and algorithms to create mathematical models and make predictions based on past information or data. Blockchain technology is a decentralized, open-source digital ledger that authenticates transactions and records them without clearance from a central body. The fundamental goal of its distributed structure is to provide an immutable, secure record of transactions. The main benefits are its capacity to boost security and trust using cryptographic techniques, making it challenging for counterfeiters to tamper with the data. Additionally, because every user of the network has access to the recorded transactions and may confirm them, blockchain promotes greater transparency. Blockchain is often referred to as an "un-hackable" technology. However, the major drawbacks include scalability concerns and high energy usage because of the consensus techniques used. Data analytics on safe data stored on a blockchain is needed to address the above-mentioned problems. The significance of emerging technology Machine Learning (ML) is increased by analytics on this data. Making precise judgements with ML requires a reasonable amount of data. In ML, the accuracy of findings is greatly improved by the data's dependability and sharing. ML and BT working together can produce incredibly accurate results. Blockchain is anticipated to have a significant effect on the healthcare sector. The current issues with healthcare management systems have been identified, and the blockchain-based healthcare apps

that are now in use have been examined, using mapping research that searched many scientific sources. Blockchain adoption in the healthcare industry has difficulties despite its inherent benefits, including distributed ledger, encryption, consensus, and immutability.

Keywords: Machine learning, Blockchain, technology, healthcare, data analytics, digital ledger, information.

THE ROLE OF DATA SCIENCE IN MANAGEMENT OF DATA

Ayush Soni, Anuradha Misra
Department of Computer Science & Engineering, Amity School or Engineering and Technology
Amity University Uttar Pradesh Lucknow (U.P.), amisra@lko.amity.edu

In the modern age of information, data has become an invaluable asset driving innovation, enhancing decision-making processes, and revolutionizing industries across the spectrum. Data Science, a multidisciplinary field at the intersection of statistics, computer science, and domain expertise, has emerged as the linchpin for harnessing the power hidden within data. This abstract explores the essence of Data Science, its methodologies, significance, and the transformative impact it has on diverse sectors.

At its core, Data Science revolves around extracting knowledge and insights from vast and complex datasets. The field encompasses a range of techniques, including data collection, cleaning, analysis, visualization, and predictive modelling. By employing advanced statistical methods, machine learning algorithms, and artificial intelligence, Data Science aims to unravel patterns, trends, and correlations that underlie the information embedded in data. These revelations often lead to informed decision-making, innovative product development, process optimization, and the identification of new opportunities.

Data Science's significance is prominently showcased in its application across various sectors. In healthcare, it aids in personalized medicine by analysing patient data to tailor treatments. In finance, it predicts market trends and manages risk. Environmental science benefits from data-driven insights into climate patterns and ecological changes. Additionally, social sciences employ Data Science to analyses human behaviour, enabling better public policy decisions. The retail industry thrives on recommendation systems powered by Data Science, enhancing customer experiences. Even sports have been revolutionized through performance analysis, injury prediction, and fan engagement strategies derived from data.

The Data Science process typically involves several stages. Data collection gathers information from various sources, which may be structured, like databases, or unstructured, like social media

posts. Data preprocessing and cleaning ensure the data is accurate and ready for analysis by handling missing values, outliers, and noise. Exploratory Data Analysis (EDA) uncovers initial insights and guides the selection of appropriate models. Machine learning algorithms are then employed to build predictive or classification models, clustering techniques reveal patterns within data, and deep learning unveils intricate relationships.

Visualization serves as a critical component, as it transforms complex data into intuitive graphs, charts, and dashboards, aiding in the comprehension and communication of findings to both technical and non-technical stakeholders. However, ethical considerations surrounding data privacy, bias mitigation, and fairness are pivotal, as Data Science outcomes can profoundly influence individuals and societies.

In conclusion, Data Science stands as a transformative force in the information age, converting data into actionable insights and steering decisions across sectors. Its interdisciplinary nature, merging mathematics, computer science, and domain expertise, enables the extraction of value from data that would otherwise remain dormant. As technology advances and the volume of data burgeons, Data Science's role is set to expand, continuing to shape industries, scientific endeavours, and the way we perceive and navigate the world.

A STUDY OF THE ROLE OF TECHNOLOGY ON 2020 NATIONAL EDUCATION POLICY

[1]Deepti Pande Rana, Associate Professor, Amity School of Architecture and Planning, Amity University Uttar Pradesh, Lucknow Campus.
[2]Paramjeet Kaur, Principal,Seth M.R.Jaipuria ,Pratapgarh

The 2020 National Education Policy (NEP) introduced significant reforms aimed at transforming the Indian education landscape. One of the key aspects of the policy is the integration of technology in education. The Indian government has developed National Education Policy 2020 to enhance the nation's educational system and offer a roadmap for the future. On July 29, 2020, the Indian Cabinet adopted the NEP 2020. The NEP 2020 plan calls for changes to higher education and public schools in India. The National Education Policy 2020 places a strong emphasis on the use and integration of technology in K–12 and higher education, which will help India meet the demands of a quality education in line with the SDGs in the twenty-first century. This article emphasises the extent and importance of technology in NEP 2020 and is based on secondary data. The usage of technology in educational settings will improve teaching strategies and student learning. For the purpose of fostering open discussion regarding the use of technology in K–12 and higher education, NEP 2020 advises the establishment of the National Educational Technology Forum (NETF).

Keywords- Technology, NEP 2020, NETF, E-Learning, Secondary data

DATA MANAGEMENT SKILLS IN DIGITAL AGE

Dr. Ritu Agarwal,
ASET, AUUP, Lucknow Campus

Data management is the process of collecting, organizing, storing, and using data in a way that supports business goals and enables data-driven decision making. Data management professionals are responsible for designing, implementing, and maintaining data systems, ensuring data quality and security, and providing data analysis and insights. In the digital age, data management professionals face new challenges and opportunities as data volume, variety, and velocity increase, and as new technologies and tools emerge. To succeed in this dynamic and competitive field, data management professionals need to develop and demonstrate a range of key skills and competencies. Some of the most important ones are technical skills, business skills, soft skills, ethical skills and learning skills. Technical skills are the foundation of data management, as they enable data management professionals to work with different data sources, formats, platforms, and applications. Technical skills include data modeling, data engineering, data warehousing, data integration, data quality, data governance, data security, and data analytics. Business skills are essential for data management professionals, as they enable them to understand the business context and objectives of data projects, and to communicate and collaborate effectively with various stakeholders. Business skills include business analysis, business intelligence, project management, problem-solving, critical thinking, and decision making. Data management professionals need to be able to translate business requirements into data solutions, and to present data findings and recommendations in a clear and compelling way. Business skills require a good knowledge of the industry and the domain, as well as a customer-centric and value-driven mindset. Soft skills are the interpersonal and behavioural skills that complement the technical and business skills of data management professionals, and that help them to work well in teams and across functions. Soft skills include communication, teamwork, leadership, adaptability, creativity, and curiosity. Ethical skills are the moral and legal skills that guide the actions and decisions of data management professionals, and that ensure the responsible and ethical use of data. Ethical skills include data privacy, data protection, data ethics, and data compliance. Ethical skills require a strong sense of professionalism, accountability, and transparency. Learning skills are the meta-skills that enable data management professionals to acquire and improve other skills, and to keep up with the changing demands and expectations of the data field. Learning skills include self-directed learning, lifelong learning, online learning, and peer learning. Data management professionals need to be able to identify their learning needs and goals, and to pursue them

independently and proactively. They also need to be open to new ideas and perspectives, and to seek feedback and guidance from others.

Key Words: Data management, Skills, Technical skills, Business skills, Soft skills, Ethical skills, Learning skills

REVIEW OF MACHINE LEARNING ALGORITHM

Dr. Sheenu Rizvi

Department of Computer Science, Amity University, Lucknow, India, srizvi@amity.edu

It is well Known that machine learning is the study of algorithms and models that processors use to perform a particular task without being specifically programmed. The performance improves because the learning algorithm keeps learning. This leads to automation. These algorithms can be used for data mining, image processing, data analysis etc. This paper reviews the machine learning algorithms, highlights their important features and mentions important points for their further improvement.

ROLE OF MACHINE LEARNING IN ASSESSMENT OF BEHAVIORAL ASPECTS OF HUMAN BEING

Dr. Parul Verma

Asst. Professor, Amity Institute of Information Technology, Amity University Uttar Pradesh, Lucknow. **pverma1@lko.amity.edu**

Machine Learning (ML) is not a new word in today's era. Each domain is now days exploiting the benefits of Machine Learning. Machine Learning has found a wide range of applications across various industries and fields due to it ability to analyze data, identify patterns, and make predictions or decisions based on those patterns. ML is one of the subsets of Artificial Intelligence. ML uses data extensively for making predictions and decision making. It plays an important role in the various classification problems. The basic motive of classification problems is to identify the class of categorical variables. In behavior analysis, classification algorithms are used to assess the behavioral aspects of the person based on some conditions. For such types of classification problems supervised ML algorithms are considered appropriate. The researchers had tried hard to build ML based models to predict the future behavioral aspects. The models have attained high accuracy as well. The basic aim of the paper is to observe the role of categorical data in ML models for prediction of behavioral aspect of the person. The paper will

also emphasize the application of ML models to be used in this context and the various issues associated with it.

CHALLENGES IN RESEARCH DATA MANAGEMENT PRACTICES IN INDIA: A LITERATURE ANALYSIS

Dr. Arvind Kumar Singh
Assistant Professor, Amity University Uttar Pradesh,Lucknow

Data is a by-product of the research process where published results are the output. More and more research institutes are getting interested in this by-product. Data could be in the form of statistics, experimental results, observational data, interview recordings, etc. Organizing the varied forms of data is a challenge for any institute. This is particularly so in the present scenario of constantly changing technologies for data storage and retrieval. The funding agencies are making it mandatory to archive these datasets so that these can be preserved for the posterity and / or re-used by others. Research Data Management (RDM) has become a crucial part of a researcher's role. However, this key task is often completed by researchers, who sometimes make decisions, without having the necessary support or know-how, resulting in few research datasets being shared. The objective of this study is to identify the challenges in researcher Research Data Management (RDM) practices that impact the sharing/reusing of research data. Four thematic areas emerge from the selected literature: (i) alignment of research management and data management, (ii) resourcing, (iii) researcher openness, and (iv) research data governance. Despite the growing field of Research Data Management (RDM), there is a limited understanding of Research Data Management (RDM) practices highlighting a requirement for further investigation together with practical tools, decision aids and training to assuage clearly unmet needs. Indeed, this provides an opportunity for the Information Systems (IS) community to better support researchers to implement good Research Data Management (RDM) practices.
KEYWORDS: Research data management, Literature review, data governance & challenges etc

Masterful Strategies for Crafting Exceptional Dashboards: Best Design Practices

Dr. Meenakshi Srivastava

Assistant Professor, Amity Institute of Information Technology, Amity University, Lucknow Campus

We engage with charts constantly in our daily lives, whether it's through reading the latest news, participating in meetings, analysing sales figures, predicting future trends, or establishing goals. Dashboards commonly incorporate charts as visual representations of data. An effectively crafted

dashboard serves as a potent starting point for discussions grounded in data. With access to the identical set of information, a business organisation can expedite decision-making by relying on a unified and accurate source of information. Designing an effective Dashboard involves thoughtful planning, informed design and emphasized user testing. Different types of charts, such as bar charts, line graphs, pie charts, and more, can be used depending on the nature of the data and the insights to be highlighted. In the present manuscript a detailed discussion on different types of chart types and the various criteria to be considered while using them in a Dashboard has been done.

Keywords: Dashboard, Charts, Graphs, MS Excel, Tableau.

FEDERATED LEARNING: A DECENTRALIZED APPROACH IN HEALTHCARE

Dr. Nidhi Srivastava
AIIT, Amity University, Lucknow
nsrivastava2@lko.amity.edu

In today's world Machine Learning (ML) algorithms are being used in various fields and they have found their use in the healthcare sector as well. Data-driven Machine Learning can help in building robust models. However, these ML algorithms require huge amounts of heterogeneous healthcare related data to be collected from various places like hospitals, clinics, etc. for training the model. This data often contains personal information about organizations and individuals. Utilizing such data for training a model could breach privacy regulations and restrict the full utilization of ML. Federated learning can provide a solution to this issue. Federated learning is a decentralized machine learning approach where multiple devices or institutions collaborate to train a shared model while keeping their data localized. Its application in healthcare can be extensively utilized. The data distributed across various locations like hospitals, clinics, mobiles, etc. can be used without intervening into the privacy of the sensitive data of patients. This paper talks about federated learning and its application in numerous healthcare services like disease prediction, precision medicine, research to name a few. The paper also addresses the various challenges that this approach faces in this industry and proposes possible solutions.

MATHEMATICAL MODELLING ANALYSES OF WOMEN HEALTH FOR CERVICAL CANCER PREVENTION AND IMPACT OF VACCINATION

Nimisha Mishra

Amity University Uttar Pradesh, Lucknow

Several factors are changing the landscape of cervical cancer control, including a better understanding of the natural history of Human Papillomavirus (HPV), reliable assays for detecting high-risk HPV infections. We developed a transmission model of HPV 16 infection and progression to cervical cancer. The model was used to estimate the transmission probability of the virus, to look at the effect of changes in patterns of sexual behaviour and smoking on age-specific trends in cancer incidence, and to explore the impact of HPV 16 vaccination. The modelling analyses showed that changes in sexual behaviour and smoking accounted, in part, for the increase seen in cervical cancer incidence in 35- to 39-year-old women. It also shows that, vaccinating 90% of young women before sexual debut has the potential to decrease HPV type-specific (e.g., type 16) cervical cancer incidence by 91%. While vaccination has the potential to significantly reduce type-specific cancer incidence, its combination with screening further improves cancer prevention.

ANALYZING THE POWER OF GENERATIVE AI IN ACCELERATING MARKETING AND SALES

Dr. Namrata Nagpal
AIIT, Amity University Uttar Pradesh, Lucknow, India
nnagpal@lko.amity.edu

Generative Artificial Intelligence or GenAI has revolutionized the world with its strong automation, content creation and personalization. Generative AI powered with machine learning and natural language processing has tremendous potential to become a powerful tool and enhance various business-oriented services like accelerating the marketing and sales of a company. With generative AI, marketing can be elevated to a whole new level as it aids in quickly creating personalized and tailored content for an identified target audience, thereby improving the company's sales, and building organizational brand. GenAI can help to fine tune and optimize marketing strategies through A/B testing of multiple parameters such as page layouts, ad copy, and Search Engine Optimization strategies, thereby leveraging predictive analytics and data-driven recommendations to ensure higher RoI. Generative AI's advanced algorithms can use customer and market data patterns to segment and target relevant audiences across their preferred channels. These AI models and tools have become more innovative, driving better business outcomes over time. Gen AI has emerged as a transformative tool in promoting marketing and sales strategies by harnessing the capabilities of artificial intelligence to create, enhance, and personalize content. It encompasses techniques like GANs (Generative Adversarial Networks) and language models, enables businesses to generate a wide array of content, and develop marketing campaigns to accelerate the company sales. It also uses neural network techniques such as transformers, GANs and VAEs along with other techniques including convolutional neural networks, recurrent neural networks and reinforcement learning

to gather data, perform content learning and automation of tasks and produce results that save marketers' time and increase overall productivity, thereby accelerating the sales of the organization. While ethical considerations and integration challenges exist, the potential of generative AI to reshape marketing and sales practices is indisputable, promising a future where businesses connect with audiences in unprecedented ways.

Keywords: Generative AI, Artificial intelligence, GAN, RoI, machine learning, sales, marketing, CNN, RNN

SECURED DIGITAL TRANSACTION ASSISTED WITH DEEP REINFORCEMENT LEARNING FOR CYBERATTACKS

Pooja Khanna
Amity University Uttar Pradesh, Lucknow Campus,pkhanna@lko.amity.edu

With exponential growth in number of connected devices the scale of Internet connected systems has increased multi fold, this has led to ease with digital transactions can happen among different domains of industries, be it finance, transport, manufacturing, food, agriculture, healthcare or any other. This has potentially put forward an open challenge in terms of confidentiality, security, and integrity resulting in increase in cyberattacks more than ever. The complexity and dynamics of cyberattacks require protecting mechanisms to be responsive, adaptive, and scalable. Machine learning, or more specifically deep reinforcement learning (DRL), methods have been proposed widely to address these issues. By incorporating deep learning into traditional RL, DRL is highly capable of solving complex, dynamic, and especially high-dimensional cyber defence problems. This article presents a survey of DRL approaches developed for cyber security to secure digital transactions. Work touches on different vital aspects, including DRL-based security methods for cyber–physical systems, autonomous intrusion detection techniques, and multiagent DRL-based game theory simulations for defence strategies against cyberattacks.

Keywords: cyberattack, digital transaction, deep reinforcement learning, game theory, intrusion.

SMART CLINICAL DIAGNOSTIC PLATFORM EMPLOYING ARTIFICIAL INTELLIGENCE TECHNIQUES

Pragya[1], Sachin Kumar[2]
[1]MVD College, Lucknow
[2]Amity University Uttar Pradesh, Lucknow Campus,
dr.pragya2011@gmail.com, skumar3@lko.amity.edu

Artificial intelligence is bringing revolutionary changes to so many diversified domains, by plugging in smart automated decisions at micro and macro levels within the machinery. One such potential industry is healthcare industry, which accounts for 11% of global GDP or $9 trillion annually. AI has become a functional component from the development of drugs and vaccines, to improving medical diagnosis and treatment, such technologies are being used in all stages of the value chain, boosting efficiencies across the overall healthcare system. With innovations in communication technology, security and AI applications, the healthcare industry has been one of the most beneficial to this change, by merging digital transformation and healthcare, to form digital healthcare, thereby introducing digital pathology, which implements image processing algorithms to help pathologists analyse and examine a diagnosis faster and more efficiently. It not only reduces the long hours pathologists used to take in laboratory analysis but also reduces human error, however, past research work has been limited to using AI models to diagnosis one specific disease at a time. Whereas this research work aims to develop an AI model that will automatically perform pathological analysis, to determine the diagnosis for multiple diseases from a medical image, then provide the medical report, while securing the patient's data, and assisting them with any questions they might have regarding the diagnosis. Work done summarises the technological advances in each field vs the current clinical practices and we conclude by merging the two worlds of traditional and digital biomarkers through AI/ML technologies to improve patient diagnosis and treatment.

Keywords: healthcare, diagnostic, clinical practices, AI/ML, image processing.

IOT BASED IMPLEMENTATION OF SMART AGRICULTURE SYSTEM

Dr. Pratibha Maurya

Amity University Uttar Pradesh ,Lucknow, India, pmaurya@lko.amity.edu

The country's main financial sector, horticulture, is crucial to the nation's overall financial development. Specific cultivation techniques can become more adept with the help of mechanical developments in the horticultural area. With their agility and sophistication, Internet of Things (IoT) developments have upended every aspect of the lives of regular people. This study intends to use the Internet of Things technological advancements for mushroom farming. IOT modernization aids in gathering data on conditions such as weather, moisture, temperature, and the fertility of the soil. Crop web-based analysis facilitates the detection of wild plants, level of water, bug location, creature interruption into the field, and horticulture. IOT uses farmers to connect to his home at any time and from any location. Remote cameras have been used to view the circumstances in pictures and videos from a distance. IOT development can increase productivity while lowering costs compared to conventional development.

PREDICTION OF CHRONIC KIDNEY DISEASE USING MACHINE LEARNING ALGORITHMS

Dr. Ranjana Rajnish, Amity University Uttar Pradesh, Lucknow Campus,
rrajnish@lko.amity.edu

Chronic Kidney Disease is becoming one of the deadliest diseases these days that affects 10-15% of the global population. Chronic Kidney Disease (CKD) is a condition in which the kidneys functioning is reduced, thus they are not able to clean the blood causing high level of urea in blood. It is a non-communicable disease and is a silent killer as it can not be diagnosed in the initial stages. The disease has five stages, 5^{th} being the End stage renal disease (ESRD) which is the most fatal stage. In most of the cases the disease is detected in the fourth or the fifth stage in which survival of the patient becomes difficult due to various complications like hypertension, electrolytes imbalances, neurological complications etc. that arise in patients' body. At this stage to save the patient's life, the two options that are available are either dialysis or kidney transplant. Earlier intervention in detection of disease may help in slowing down the progression of the disease. Lot of research is being done to detect chronic kidney disease (CKD) using various machine learning techniques. Main objective of the earlier studies was classification, where the results suggested if the patient has the disease or not. In this paper, we will use the UCI machine learning dataset and try to establish significant features that are responsible for kidney disease. Also, the paper will use various machine learning algorithms to diagnose CKD at an earlier stage.

Keywords: Chronic Kidney Disease (CKD), Machine Learning, End Stage Renal Disease (ESRD)

PROBLEM AND CHALLENGES FACED BY URBAN WOMEN IN INDIA: A LITERATURE REVIEW

Dr Reshma Umair ,Assistant professor,
Amity Law School, Amity university Lucknow

In India women are given the status of a goddess. On one hand they worship them as goddesses and on the other, they abuse them endlessly and consider them inferior. Indian women always had some problem or the other to face in the society. The study was confined to the urban working women in India. A mixed methods approach involving face to face interviews, focus group discussions and questionnaire technique including both close-ended and open-ended

questions was chosen for effective collection of data from the respondents. The results of the study showed that different age group of working women have different kinds of problems and challenges and different categories as married, single, divorcee, single parent, separated, have different issues at stake in the workplace. Some problems are definitely common, like mental and physical stress, lack of proper balance between employment and family care, unfair treatment in the workplace, stressful life and work place discrimination etc. But some challenges are age or category specific, like prejudiced and stereotyped thinking, safety and security issues etc.

To combat these problems faced by Indian women, everyone must work together. Every person must work to ensure that it is safe for women to be there, including the government

Keywords: Literature review urban, women, challenges, problem

MODEL CONSTRUCTION USING MACHINE LEARNING

Vikas Mishra, Vineet Singh

Department of Computer Science & Engineering, Amity School of Engineering & Technology, Amity University, Lucknow Campus Uttar Pradesh, vikas.mishra@s.amity.edu, vsingh@lko.amity.edu

This report presents a thorough exploration of the machine learning model creation process, offering a panoramic view of the workflow. It begins by emphasising the significance of problem formulation, encompassing objective definition, target variable selection, and data feasibility assessment. The subsequent sections delve into data collection and preprocessing techniques, encompassing data gathering, cleaning, handling missing values, and transformation. Notably, the report underscores the importance of feature extraction and the division of datasets into training and testing sets. Model selection takes center stage next, covering various model types, performance metric evaluation, and specific model choice for given problems. The report elaborates on model training and evaluation, involving training with data, hyperparameter tuning, and performance assessment using testing data. Moving forward, it addresses model deployment, highlighting the need for production-ready models, diverse deployment strategies, and post-deployment monitoring and maintenance. Real-world case studies in healthcare, finance, and education illustrate machine learning applications in different domains. Ethical considerations and challenges receive due attention in the report, encompassing topics like data privacy, bias, fairness, and model interpretability. The conclusion encapsulates these points while also providing insights into future trends within the field. In essence, the report serves as a comprehensive guide to understanding and constructing machine learning models. It offers a systematic, practical approach for each stage of the workflow, making it an invaluable resource**.**

USING AI TO ENHANCE STUDENT AUTONOMY IN LANGUAGE LEARNING CLASSROOMS

Supriya Banerjie,

Amity University in Tashkent, sbanerjee@amity.uz

The increasing interface of AI and Language learning is an essential skill for students in this increasingly globalized world. The scaffolding process of learning a new language needs insightful understanding of resources available on the internet, and a paced learning methodology. With the advent of artificial intelligence (AI), language learning has seen significant growth, and these advancements have in turn provided students with a platform to enhance their autonomy in the classroom. They student is the main actor whereas the teacher is a facilitator only, guiding the students to access focussed research and learning processes based on their multiple intelligences.

AI-powered language learning platforms provide students with personalized and adaptive learning experiences. These platforms are equipped with algorithms that analyse students' multiple intelligences and suit them to their LSWR skills. Additionally, AI can tailor the learning content to match students' preferences and interests, making the process more engaging and enjoyable. This personalized approach enables students to take ownership of their learning journey, giving them the autonomy to set their own goals and pace.

Furthermore, AI assistants, such as language chatbots, allow students to practice and consolidate their language skills that uses meta cognition skills and creative thinking. These chatbots simulate real-life contextual cues, providing students with scaffolding to apply their knowledge, receive instant feedback, and refine their language skills. This enhances students' autonomy as they can access language learning support whenever and wherever they need it, without being bound by the constraints of traditional learning classrooms and time bound learning processes. Moreover, AI facilitates independent language learning through its vast database of resources, including online courses, language exercises, and multimedia content. Students can utilize these resources to immerse themselves in the language and culture, fostering a deeper understanding of the language they are learning.

This autonomy ensures that students can take charge of their learning, exploring various topics and aspects of the language that interest them. In conclusion, AI has revolutionized language learning, empowered students and enhancing their autonomy in the process. Through personalized and adaptive learning platforms, interactive chatbots, and a vast database of resources, students can take ownership of their language learning journey. With AI as their companion, students can embark on an exciting and autonomous exploration of the language, ultimately mastering it with confidence and proficiency.

QUIZMASTER : WEB BASED QUIZ APPLICATION

Tarun Kumar Singh

Amity University Lucknow Campus, Lucknow ,U.P, India. tarun.singh2@s.amity.edu

After surfing through many quiz applications, I got an idea how any general quiz application looks and works so after that I decided to build my own customized quiz app named QuizMaster for my in-house training which is interactive, engaging, and easy-to-use quiz application.

In this quiz app I have provided a true /false mechanism with the help of CSS in which for correct answer there is green feedback and for false answer there is red feedback for testing your knowledge in this app and a high score option for track of te score and a progress bar and multiple question are fetched from trivia regarding many topics.

In my quiz app I have design so that the high score of a particular user can be stored in local storage using JavaScript and a comprehensive summary of their performance, including total score, percentage, and a detailed breakdown of correct and incorrect answers.

And this app is compatible with mobile as well as desktops as it uses HTML and CSS element which resize as the screen size with 'justify-content' which is a code used in CSS and many like this and it also has very user-friendly interface.

In this quiz app there is very subtle color grading for user to enjoy using the quiz app for any period of time as the question in this app are auto-generated user can enjoy this quiz app and test their knowledge and advance is also.

In whole this is a quiz app which aims to provide a wide range of questions and with immediate feedback as well as a progress bar to track progress, high score counter both calculated and saved in local storage and result of every quiz attempt at last of the quiz application to test and improve user knowledge who is attempting the quiz and it's seeming less interactive and user-friendly.

FACIAL RECOGNITION IN DRONES USING ARTIFICIAL INTELLIGENCE AND DATA ANALYTICS

Trishubh Shukla[1] , Dr. Bramah Hazela[2], Dr. Shikha Singh[3]

1Student, Amity School of Engineering and Technology, Amity University Uttar Pradesh, Lucknow, India

[2,3] Assistant Professor, Amity School of Engineering & Technology, Amity University Uttar Pradesh Lucknow Campus, Lucknow, India

This paper investigates the fusion of facial recognition technology with unmanned aerial systems, commonly known as drones. Through the integration of artificial intelligence and data analytics, drones endowed with facial recognition capabilities have emerged, enabling realtime autonomous identification and tracking of individuals. This study explores into the multifaceted impact of this innovation across industries, such as security, search and rescue operations, and marketing. The utilization of deep learning algorithms equips these drones to proficiently detect and match faces within expansive datasets. Additionally, the incorporation of data analytics facilitates the processing of facial data acquired by drones, yielding valuable insights encompassing crowd dynamics and demographic trends. However, the convergence of facial precipitate and drones also precipitates ethical considerations related to privacy and surveillance. Balancing the advantages with potential risks is imperative in this evolving landscape. The paper accentuates the significance of transparent regulations and responsible implementation strategies to ensure the judicious deployment of facial recognition in drones. By elucidating the transformative possibilities and addressing pertinent ethical concerns, this research contributes to a comprehensive understanding of the complex interplay between artificial intelligence, data analytics, and unmanned aerial systems in the realm of facial recognition.

Keywords: Facial Recognition, Drones, Artificial Intelligence, Data Analytics, Tracking

AN OVERVIEW OF BLOCKCHAIN TECHNOLOGY: ARCHITECTURE, CONSENSUS, AND FUTURE TRENDS

Mohammad Zaki, Kapil Kumar Gupta

Department of Computer Science & Engineering, Amity university Lucknow, Uttar Pardesh, India, Zakikhan7785@gmail.com, kkgupta@lko.amity.edu

Abstract—Bitcoin's underlying technology, blockchain, has recently drawn a lot of attention. Blockchain functions as an unchangeable ledger that enables decentralised transaction processing. Numerous industries, including financial services, reputation management, and the Internet of Things (IoT), are seeing the emergence of blockchain-based applications. Blockchain technology still faces several obstacles, including scalability and security issues, which must be resolved. This essay provides a thorough introduction to blockchain technology. First, we give a brief introduction to blockchain architecture before contrasting several common consensus techniques applied across various blockchains. Also briefly addressed are technological difficulties and recent advancements. We also outline potential blockchain developments in the future. Index Terms—Blockchain, decentralization, consensus, scalability.

AI INNOVATION UNLEASHED STAYING CURRENT WITH THE LATEST TRENDS AND ADVANCEMENTS

Shubhangi Verma

Department of computer science and Engineering

The "AI Innovation Unleashed: Staying Current with Latest Trends and Advancements" paper addresses the urgent need to keep up with developments in the fast changing field of artificial intelligence (AI). Keeping up with the most recent trends and developments is essential as AI continues to transform various businesses and social structures. This project offers a thorough framework to make it easier to track and comprehend cutting-edge AI advances.

The paper examines major trends in AI across machine learning, natural language processing, robotics, and more through thorough research and expert perspectives. It creates a central hub for people to explore and learn by curating an accessible repository of current resources, such as research papers, articles, and case studies.

The paper goes beyond merely disseminating information by examining the ramifications and use cases of cutting-edge AI technologies. Working together with industry leaders results in enlightening webinars, workshops, and debates that promote knowledge sharing and the use of AI advancements across industries. This strategy promotes innovation by enabling the deployment of AI strategies and informed decision-making.

In short "AI Innovation Unleashed" fills the gap between the development of fast advancing AI technologies and their use in the real world. The initiative enables people and organizations to leverage AI's transformational potential and contribute to its continued growth by offering a structured platform for continuous learning. This initiative provides direction for those aiming to stay at the forefront of innovation in the face of AI's extraordinary rate of change.

USE OF DATA ANALYTICS IN HOSPITALS

Sonika Gupta and Alpana Srivastava

Research Scholar (Part-time), and Professor, Amity University, Lucknow, UP, India

An organization is not established itself. Its development and growth are determined by the decisions driven by using a vast variety of structured and unstructured data. Medical data comprises medical records of patients like examination reports, follow-up reports & records of hospital base, their inventories & and manpower. It is utilized to enhance their potential(Big data in healthcare: management, analysis and future prospects)

This study assesses the use of data analytics to find the efficiency of the hospitals in the health care industry. The methodology used here is descriptive.

(https://online.maryville.edu/blog/data-analytics-in-healthcare/) Hospitals use data analytics to identify major risk-prone diseases, to find preventive measures. It makes the diagnosis process easy. Adminidstrative and managerial advantages are possible only due to data analytics. Patient waiting ratio is reduced due to better maintenance of HER (electronic health records). It makes healthcare sectore more efficient hence reducing cost. Clinical procedures have become patient friendly. Application of health data analytics is seen in curing cancer , in delivering telehealth services.

(https://www.datapine.com/blog/big-data-examples-in-healthcare/)Data analytics advantages are not flawless. Data integration is a big challenge. Different platforms have different structures for data collection, process, and storage. Data privacy is also a hurdle in data analytics.

Keywords:

"NAVIGATING DIGITAL DISRUPTION IN RETAIL: ADAPTING TO CHANGING CONSUMER PREFERENCES"

Shruti Sharma[1]&Dr. Nishant Dabhade[2]

Research Scholar, United University ,Prayagraj,
Assistant Professor, Faculty of Commerce and Management, United University, Prayagraj
nishant.dabhade@uniteduniversity.edu.in

This paper aims to study the effects of digital disruption on the retail sector and urgent need for retail brands to address the issue to gauge the dynamic consumer preferences and stay ahead in the competition. Technology has revamped the way traditional businesses are run and has reemphasized the need to adapt to the customer focused strategy.

The tactics and techniques that retailers can use to not only understand but also skillfully react to the altering customer landscape are examined in this study. Retailers can engage their audience by utilisingpersonalised marketing techniques, seamless omni-channel experiences, and the power of data analytics and artificial intelligence to understand trends in customer behaviour.

This paper emphasizes importance of real-time engagement and the strategic use of social media as a tool for connecting with customers. It illustrates how a proactive response to digital disruption may result in sustainable growth and improved customer loyalty through an examination of pertinent case studies and best practices.

This study uses a review-based methodology to examine and synthesize pertinent literature on Digital disruption, data analytics, and consumer behavior and consumer perceptions of retail brands from various scholarly databases, journals, websites and reliable sources. More than 50 articles and from trusted sources and databases and data from websites have been studied and analyzed in this study. This study offers significant understanding on the need of adaptation of technology, positioning retailers to not only survive but also prosper in a quickly shifting customer scenario.

Keywords: Digital Disruption, Data Analytics, Consumer Behaviour

TOOLS USED FOR DATA MANAGEMENT

Shweta Gupta, Dr Upasna Yadav

Amity school of Applied Science, Amity University Uttar Pradesh [AUUP], Lucknow Campus, India

In the research field, various data analysis tools are utilized to gain insights tools are utilized and draw conclusion from complex data. Common tools include programming languages like R and Python, along with libraries such as pandas and NumPy. Specialized software like SPSS, MATLAB, and SAS are also employed for statistical analysis. These tools assist researchers in examining data from diverse domains and making informed decision based on their findings. Certainly! In the field of environmental science, data analysis tools such as R, Python [with libraries like pandas and NumPy,] and specialized software like QGIS and frequently utilized. These tools assist researchers in Comprehending and interpreting data concerning topic like climate change, pollution, biodiversity, and other environmental factors. Insight Generation these tools help uncover patterns, trends and relationships in large datasets, leading to deeper insights into complex environmental processes. Evidence Based Decisions data drive analysis enable researchers and policymakers to make informed decisions rather than intuition. Environmental Monitoring real time data analysis in continuous monitoring of environmental parameters, aiding in early detection of anomalies and potential hazards. Scientific Advancement by leveraging data analysis, researchers can contribute data analysis, researchers can contribute to the advancement of environmental science, discovering new phenomena and refining theories. overall, data analysis tools empower environment scientist to make informed decisions, unravel intricate relationships, and drive positive change in understating and addressing environmental issues.

DATA PRE-PROCESSING OF ANALYSIS OF TOXICITY OF HEAVY METALS IN WATER

Shivangi Singh and Dr. Smriti Khare

Amity School of Applied Sciences, Amity University Uttar Pradesh [AUUP] , Lucknow Campus

Data pre-processing is a crucial step in preparing data for analysis.Itinvoloves tasks such as cleaning , transforming and organizing the data to make it suitable for further analysis. Effective analysis of toxicity of heavy metals in water is crucial for environmental and public health assessments.Data pre-processing plays a vital role in enhancing the accuracy and reliability of such analysis. This abstract explores the essential stages of data pre-processing ,encompassing data collection, purification, transformation and identification of anomalies. By addressing issues like missing values , noise and inconsistencies, pre-processing contributes predictive models. Ultimately, the meticulous pre-processing fosters timely identification and effective management of water toxicity induced by heavy metals.Data pre-processing involves a series of steps to clean , transform and prepare data for before conducting analysis. These are data collection and integration , data cleaning , outlier detection , feature transformation , normalization and scaling , feature selection , data balancing , data encoding , data spliting and validation.

KEYWORDS: Data Pre-Processing, Environmental, Predictive, Integration

USE OF BLOCK CHAIN IN CARBON TRADING FOR SUSTAINABLE DEVELOPMENT

Shreya Nirmal

Research Scholar Amity Business School, Lucknow

Climate change has become a new threat globally which need to be addressed in order to reduce the future calamities . The flexible way to reduce the emissions of greenhouse gases is through the kryoto protocol established in 1997 . Future reductions in environmental pollution and carbon emissions on Earth should be made possible using carbon credits. Beginning in 2021, the market for carbon credits will become a serious problem, and these credits will be used in systems that allow for individual trading. However, a comparable exchange of carbon credits is required in order for these carbon credits to be exchanged between people. Measurement of the selling of carbon credits also requires policies, tactics, and technological advancements. This study uses blockchain technology to calculate carbon emission rights in order to increase the trustworthiness of transactions. Block Chain technology provides transparency in transaction, Immutability: transaction done cannot be changed once recorded and work on decentralized system. One of the 17 goals of the UN-SDGs (United Nations Sustainable Development Goals) uses blockchain for verifying carbon emission rights. Blockchain technology will help in building a carbon credit atmosphere which will guarantee us the security, transparency and easy access to standard carbon markets.

A STUDY ON EFFECTS OF FLEXIBLE WORKING HOURS ON WORK LIFE BALANCE

Shagufta Ali andDr. Azra Ishrat
Research Scholar, ABS, Amity University, Lucknow Campus
Asst. Prof.ABS, Amity University, Lucknow Campus

Flexible work schedules are becoming more and more crucial in today's companies. Because flexibility benefits both the employee and the company, many businesses allow their staff flexible working hours. The most frequent advantages are increased employee productivity and increased organizational profitability. Additionally, flexible work schedules support and facilitate a balanced work-life. Employee health and reduced stress are benefits of work-life balance.

This research paper explores the multifaceted relationship between flexible working hours and work-life balance in contemporary work environments. With the evolving nature of work, organizations are increasingly adopting flexible work arrangements to enhance employee well-being and productivity. In an era marked by technological advancements.

The paper examines the connection between work-life balance and flexible work schedules.

KEYWORDS: Flexible Working Hours; Benefits; Work-Life Balance; Stress; Wellbeing

DIGITAL BANKING IN INDIA: TRENDS, OPPORTUNITIES, AND CHALLENGES

Dr. Sanober Khan
Associate Professor,Department of Management and Social Sciences, Amity University, Tashkent.Uzbekistan. skhan@amity.uz

The predominant channel for providing banking services in the country in the recent years has been Digital Banking. By enabling clients to carry out their daily financial activities at their convenience, digital banking has opened the door to a new range of banking services. India's digital banking systems are expanding quickly as a result of the widespread use of mobile phones and the internet. Understanding digital customer behaviour, preferences, choices, needs, and goals among other factors, is the first step in any successful digital transformation.

In the past few decades, the banking industry has gone through three major clear-cut stages of digital change. With an emphasis on increasing customer convenience, the first saw the

development of Automated Teller Machines (ATMs), call centres, and telephone banking, and the banking became transactional and technology centric. The next phase introduced personalised banking services and was influenced by a variety of SMAC (Social, Mobile, Analytics and Cloud) technologies. The third stage was driven by more recent technologies, like Artificial Intelligence (AI), Robotic Process, Automation, Blockchain, Application Programming Interface (API) Banking, and Internet of Things (IoT), to offer far deeper degrees of personalisation and improved user experience. These transformations lead to a substantial shift from a product centric to a customer centric perspective. Under this background, this paper examines the digital banking in India, its status, trends, opportunities, and challenges.

Keywords: Digital Banking Units, Digital transformation, Payment systems

MEDICAL HEALTH REPORT AND DIAGNOSIS

Sameer Madan and Mohan Sharma

Amity University Lucknow Campus, Lucknow ,U.P, India. sameer.sharma@s.amity.edu

A full review of a person's health over the course of a year is intended by an annual medical health report and diagnosis project. The report gives details on the patient's medical background, present health issues, and any diagnostic procedures or tests that were carried out. The project's objective is to present an accurate and thorough picture of the person's health, which may be used to guide treatment choices and enhance overall health outcomes. The major features of the report, including its objective, methodology, and primary conclusions, would be summarized in the project's abstract. Along with any recommendations for future care, it would also draw attention to any noteworthy trends or patterns found in the data.

ARTIFICIAL INTELLIGENCE SYSTEMS

Samarth Agarwal, Prof. (Dr.) Syed Wajahat Abbas Rizvi

Department of Computer Science & Engineering,Amity School of Engineering and Technology,Amity University Uttar Pradesh,Lucknow Campus. samarth.agarwal1@s.amity.edu. swarizvi@lko.amity.edu

This project of ‘ARTIFICIAL INTELLIGENCE SYSTEMS’ contains an Equity recommendation system. This project aims to predict stock prices for profitable results. Using python programming language, I have implemented various Artificial Techniques to make a recommendation system. Passing various test cases led to improvement of system and accurate results.

This project further depicts the future use of Artificial Intelligence in various sectors such as finance sector and trading/investing.

INTEGRATED APPLICATION OF MACHINE LEARNING ALGORITHMS FOR EFFECTIVE MANAGEMENT OF DATA

Prof. (Dr.) Namrata Dhanda[1], Rajat Verma[2]
[1]Professor, Department of Computer Science and Engineering, Amity University Uttar Pradesh, Lucknow, India
[2]PhD Research Scholar, Department of Computer Science and Engineering, Amity University Uttar Pradesh, Lucknow, India

In the tender age of big data, organizations have multiple challenges in successfully managing and deriving important insights from their huge data sets. Traditional techniques of data management frequently fall short of dealing with the intricate details and scale of contemporary datasets. However, the incorporation of machine learning techniques gives a possible answer to these difficulties. This abstract investigates the combined use of machine learning techniques for optimal data management. Organizations may unleash the actual potential of their data and achieve a competitive advantage in a variety of industries by leveraging the power of machine learning. Organizations can automate and streamline their data management processes by incorporating machine learning techniques. These methods can help in cleaning up data and ensuring that datasets are accurate and consistent. They can also help with data integration, which is the process of merging diverse data sources into a single format for analysis.

Additionally, machine learning algorithms can help with data classification and sorting, allowing businesses to organize and identify their data with minimal human participation. This saves time while also improving data accessibility and search ability. Machine learning algorithms can also improve data analysis and predictive modeling. Businesses can find patterns, trends, and anomalies in their data by employing algorithms such as random forests, decision trees, and neural networks. These insights can help companies make more informed decisions, improve their procedures, improve client experiences, and find new business prospects. Finally, the integrated use of machine learning algorithms provides a disruptive strategy for effective data management. Organizations may improve data quality, automate processes, and generate important insights from their data by employing these algorithms, paving the way for better decision-making and competitive advantage.

Keywords: Data Management, Decision Making, Machine Learning, Predictive Modeling.

EMBRACING GREEN HRM WITHIN HOTEL INDUSTRIES

Preeti Singh
Amity University Lucknow

Green HRM refers to the implementation of environmentally sustainable practices within HRM strategies. It involves integrating green initiatives into various HR processes. It's crucial in the hospitality sector due to its significant impact on the environment. By doing so hospitality industries aim to reduce their carbon footprint, enhance sustainability efforts and create a positive impact on the environment. It can lead to benefits such as cost savings, improved reputation By identifying trends and effects of green HRM we can shed light on its contribution to environmental performance within the industry.This research could provide valuable insights for promoting sustainability and addressing environmental challenges caused by hospitality industries. Data management tools play a crucial role in Green HRM by enabling the tracking analysis and monitoring of environmental impact data. This includes aspects like energy consumption and the effectiveness of sustainability initiatives. By leveraging these tools, hotels can make informed decisions to advance their eco-friendly efforts and contribute to a more sustainable future. The findings of this study will show that Green HRM has a positive effect on employee's organizational commitment and environmental performance. This suggest that integrating environmentally conscious practices into HR strategies can lead to stronger commitment from employees and increases employee engagement due to shared commitment to eco-friendly practices.

STUDY OF META SURFACES

Palash Kumar[1], O.P. Singh[2]

Department of Electronics & Communication Engineering, Amity School Of Engineering & Technology (ASET). Amity University Uttar Pradesh, Lucknow

Meta surfaces have emerged as a fascinating field of study in the realm of optics and photonics, offering unprecedented control over light propagation at the nanoscale. This research presents a comprehensive investigation into the design, fabrication, and application of meta surfaces.

This study begins with an overview of meta surfaces, highlighting their unique properties and potential applications. The various design principles and optimization strategies for meta surfaces are then explored.

Next the fabrication techniques for meta surfaces are discussed. The challenges and limitations with each approach are also discussed along with potential solutions. Furthermore, this research shows the various applications of meta surfaces across different domains.

Finally, the research concludes with an outlook on the prospects and challenges in the field of meta surfaces.

Keywords: Meta surfaces, optics, photonics, design principles, fabrication techniques, applications, prospects, challenges.

ARTIFICIAL INTELLIGENCE FOR METAMATERIALS DESIGN

Nitin Mohan[1], O P Singh[2] and A K Singh[3]
[1,2]Department of Electronics and Communication Engineering, Amity School of Engineering and Technology (ASET). Amity University Uttar Pradesh, Lucknow Campus
[3]Department of Electronics and Communication Engineering, Rajkiya Engineering College, Kannauj, AKTU Uttar Pradesh Lucknow

The design of metamaterials is a complex task, and it can be difficult to predict how a particular structure will behave. This is where artificial intelligence can be helpful. AI can be used to analyze large datasets of data about metamaterials, and this data can be used to train AI models to predict the properties of new metamaterials.

AI is already being used to design metamaterials for a variety of applications, including invisible cloaking, Superlenses, Waveguides, Energy harvesters,etc. The field of AI for metamaterials is still in its early stages, but it has the potential to revolutionize the way metamaterials are designed and used. As AI algorithms become more sophisticated, they will be able to design metamaterials with even more exotic properties. This could lead to new applications for metamaterials in areas such as healthcare, security, and transportation.

A team of researchers at the University of California, Berkeley used AI to design a metamaterial that can absorb 99.99% of light. This metamaterial could be used to create new types of solar cells or to develop new ways to camouflage objects. A team of researchers at the University of Manchester used AI to design a metamaterial that can bend light around corners. This metamaterial could be used to create new types of cameras or to develop new ways to transmit data over long distances. A team of researchers at the Massachusetts Institute of Technology used AI to design a metamaterial that can focus sound waves. This metamaterial could be used to create new types of hearing aids or to develop new ways to transmit sound over long distances.

These are just a few examples of the many ways that AI is being used to design metamaterials.

As AI algorithms become more sophisticated, we can expect to see even more exciting applications for metamaterials in the years to come.

Keywords: Artificial Intelligence, Metamaterials, Datasets, Algorithms

EVALUATION OF SCENTED RICE OF UTTAR PRADESH

Omisha Kannaojiya[1],Kumari Sunita[2]

Department of Botany, DDU Gorakhpur University Gorakhpur, Uttar Pradesh 273009

India boasts an impressive range, housing over 300 varieties of scented rice. Each state within the country boasts its own distinct scented rice variety, contributing to India's status as the world's leading exporter of scented rice. Scented rice can be broadly categorized into Basmati and Non-Basmati Rice. This discussion focuses on two exceptional scented rice types from Uttar Pradesh: Basmati rice and Kalanamak rice. These varieties are renowned for their distinct aromas and physical characteristics. Basmati rice is recognized for its elongated grains and specific fragrance, while Kalanamak rice stands out with its black husk, ordinary grain quality, and unique aroma. While India holds the distinction of being the largest global exporter of aromatic rice, primarily Basmati, the country actually possesses more than 300 aromatic rice varieties. Unfortunately, many of these have lost their aromatic attributes due to inadequate seed management, including Kalanamak rice. Nevertheless, in recent times, scientists have dedicated attention to Kalanamak rice, resulting in the creation of four new varieties. The Uttar Pradesh government is also actively engaged in enhancing the production and export potential of this exceptional rice variety.

FEDERATED LEARNING: A DECENTRALIZED APPROACH IN HEALTHCARE

Dr. Nidhi Srivastava
AIIT, Amity University, Lucknow
nsrivastava2@lko.amity.edu

In today’s world Machine Learning (ML) algorithms are being used in various fields and they have found their use in the healthcare sector as well. Data-driven Machine Learning can help in building robust models. However, these ML algorithms require huge amounts of heterogeneous healthcare related data to be collected from various places like hospitals, clinics, etc. for training the model. This data often contains personal information about organizations and individuals. Utilizing such data for training a model could breach privacy regulations and restrict the full utilization of ML. Federated learning can provide a solution to this issue. Federated learning is a

decentralized machine learning approach where multiple devices or institutions collaborate to train a shared model while keeping their data localized. Its application in healthcare can be extensively utilized. The data distributed across various locations like hospitals, clinics, mobiles, etc. can be used without intervening into the privacy of the sensitive data of patients. This paper talks about federated learning and its application in numerous healthcare services like disease prediction, precision medicine, research to name a few. The paper also addresses the various challenges that this approach faces in this industry and proposes possible solutions.

IMPACT OF PLANT GROWTH PROMOTING RHIZOBACTERIA ON PHYSIOLOGICAL AND MORPHOLOGICAL GROWTH OF GOLDEN SWEET POTATO UNDER WATER STRESS

Nidhi Singh[1] and Kumari Sunita[*]
Plant Physiology and Biochemistry, PGPR lab
Department of Botany, DDU Gorakhpur University, Gorakhpur, India
Corresponding author*-Email: ksunita78@gmail.com

The most dangerous abiotic stress, drought, significantly reduces crop yields across the globe. *Ipomoea batatas* (L.) Lam., known as the sweet potato, is a great source of vitamins, minerals, and other nutrients. Water stress affects physiological and morphological parameter of sweet potatoes. To manage drought stress, many adaptations and mitigation techniques are needed. Plant growth Promoting Rhizobacteria one of the best tool to reduce the impact of water stress. To study above, a pot experiment were carried out in department of Botany, DDU Gorakhpur University's Gorakhpur. There were three levels of water stress assigned to the field capacity: W1 = 80% (control), W2 = 50% (mild), and W3 = 30% (severe). Plant relative growth rate, chlorophyll content, plant height, and leaf area were all decreased by drought stress. The use of PGPR preserved higher growth and physio-chemical features in the plants while reducing the effects of drought. The results of the study suggest that plant growth promoting rhizobacteria have ability to sustain growth of Golden Sweet Potato under drought stress by maintaining physiological functions of the plants.

Key words – Golden Sweet Potato, Chlorophyll content, PGPR, Water stress, Pigment, Relative Growth rate

IMPACT OF JOB BURNOUT AMONG WORKING INDIVIDUALS

Dr. Naghma Ali
Asst. Professor, United Institute of Management, Prayagraj

Objective: The objective of the paper is to make an attempt to study burnout and its impact among working individuals.
Methodology/Approach: The paper reviews the existing literature on burnout and its impact among working individuals.
Findings: Burnout is a special type of job stress - a state of physical, emotional or mental exhaustion combined with doubts about employee's competence and the value of their work. Researchers define burnout as a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment. The researches on burnout clearly reflect that burnout is increasingly becoming a major threat to working individuals. Major impacts of burnout on working individuals are absenteeism, turnover, and job performance for organizations and employees.
Conclusion: Burnout is of global significance nowadays. The current study adds to the knowledge towards understanding the burnout phenomenon and its impact among working individuals. Studies on burnout and its impact indicate that burnout have some major implications not only on the employee suffering but also on its family, friends and the organization. More studies are needed to gain deeper insights.

Keywords: Burnout, Exhaustion, Depersonalization, Impact, Working Individuals.

MODEL CONSTRUCTION USING IMAGE RECOGNITION

Mohammad Arham
Department of Computer Science & Engineering, Amity School of Engineering & Technology, Amity University. Lucknow Campus Uttar Pradesh. mohd.arham@s.amity.edu

This report presents a thorough exploration of the image recognition model creation process. offering a panoramic view of the workflow.It presents an advanced image recognition system that leverages deep learning techniques to achieve state-of-the-art performance in object detection and classification. By utilising convolutional neural networks (CNNs) and transfer learning, the system demonstrates robustness and accuracy across various datasets. The proposed model combines both local and global features, extracting hierarchical representations of images and enabling accurate identification of objects in complex scenes. Experimental results indicate that the system outperforms existing approaches, showcasing its potential for real-world applications such as autonomous vehicles, surveillance, and medical imaging. Our approach involves preprocessing and feature extraction to transform raw image data into informative representations. By employing convolutional neural networks (CNNs), we harness the power of deep learning to learn intricate patterns within images. Through extensive experimentation and fine-tuning, our model achieves high accuracy in classifying objects within diverse datasets. This

work contributes to the advancement of image recognition techniques and their potential integration into fields such as e-commerce, security, and augmented reality.

CONTEXT ASSISTED TARGET-DEPENDENT SENTIMENT CLASSIFICATION ON TWITTER DATA

Garima Srivastava

Amity University Uttar Pradesh, Lucknow Campus,gsrivastava1@lko.amity.edu

Sentiment classification targets the use of automated techniques for predicting the polarity of the subjective content on textual content of interest, with applications on several diversified areas including recommender and advertising systems, customer intelligence and information retrieval. Target-dependent sentiment classification remains a challenge: modelling the semantic relatedness of a target with its context and aspect words in a sentence. Different context words have different influences on determining the sentiment polarity of a sentence towards the target. Therefore, it is desirable to integrate the connections between target word and context words when building a learning system. Work proposed performs a target-dependent Twitter sentiment classification; namely, given a query, we classify the polarity of the tweets as positive, negative or neutral according to whether they contain positive, negative or neutral sentiments about that query. Here the query serves as the target of the sentiments. Generally, because tweets are usually short and more ambiguous, sometimes it is not enough to consider only the current tweet for sentiment classification. Work proposed improves target-dependent Twitter sentiment classification by incorporating target-dependent features; and by taking related tweets into consideration. Approach suggested greatly improves the performance of target-dependent sentiment classification.

Keywords: Target dependent, context, Twitter, sentiment analysis, tweets.

EXPLORING THE IMPACT OF ICT INTEGRATION ON HIGHER STUDIES THROUGH DATA SCIENCE ANALYTICS: A COMPARATIVE STUDY

[1]Kabita kumarichaturvedi and [2]Dr.Charu Bisaria and [3]Dr. Prabhat Kumar Dwivedi

[1]Research Scholar, Amity University Lucknow Campus. Kabita.chaturvedi@student.amity.edu

[2]Asst. Professor Amity Business School, cbisaria@lko.amity.edu

[3]Associate Professor, STEP- HBTI HBTI Campus Kanpur.prabhatresearch@gmail.com

The convergence of Information and Communication Technology (ICT) with higher education has catalyzed transformative changes in teaching, learning, and administrative processes. This paper investigates the intricate interplay between ICT integration and higher studies, employing the analytical prowess of Data Science Analytics to conduct a comprehensive comparative analysis.

The dynamic landscape of higher education is undergoing a paradigm shift with the infusion of ICT tools and platforms. This study aims to empirically explore the impact of ICT integration on various dimensions of higher studies, utilizing the analytical capabilities of Data Science to extract valuable insights.

The research methodology encompasses a mixed-methods approach, amalgamating quantitative analysis and qualitative exploration. A diverse array of higher education institutions will be selected as participants, varying in size, location, and academic specialization. Quantitative data will be amassed through surveys administered to students, faculty members, and administrative personnel. These surveys will gauge the extent of ICT integration, assess perceived advantages, pinpoint challenges encountered, and gauge overall satisfaction levels.

Data Science Analytics will be the linchpin of this investigation, facilitating the identification of patterns, trends, and correlations concealed within the amassed data. Sophisticated statistical techniques, including regression analysis, clustering, and sentiment analysis, will be harnessed to quantify the relationship between ICT integration and key performance metrics in higher education. These metrics encompass student retention rates, academic achievement, and operational efficiency.

Supplementing the quantitative findings, qualitative data will be amassed via interviews and focus group discussions with relevant stakeholders. These qualitative insights will proffer a nuanced comprehension of the human experience and perspectives pertaining to ICT integration within higher education.

Central to the comparative nature of this study is the juxtaposition of institutions at varying stages of ICT adoption, allowing for the evaluation of disparate outcomes achieved. The research endeavors to uncover optimal strategies, potential challenges, and effective approaches contributing to the successful assimilation of ICT.

In summation, this research elucidates the multifaceted repercussions of ICT integration within higher studies, harnessing the analytical potential of Data Science. The synthesis of quantitative data analysis and qualitative viewpoints endeavors to furnish an all-encompassing perspective, empowering higher education institutions, policy makers, and stakeholders with informed insights for navigating the realm of ICT integration.

Keywords: ICT Integration, Higher Education, Data Science Analytics, Comparative Study, Educational Technology, Learning Outcomes.

REVIEW OF DIFFERENT ANALYTICS METHODS AND TOOLS USED FOR BIG DATA

Anirudh Banerjee,
Department of Electronics and Communication, Amity School of Engineering and Technology, Amity University, Uttar Pradesh, Lucknow, India.Email: abanerjee@amity.edu

Nowadays, large volumes of data are available for decision making. It is not practically possible to handle these data using traditional tools and techniques and extract inference and knowledge from these datasets. For decision making, valuable insights should be drawn from this data. Such value can be provided by using big data analytics, in which advanced analytics techniques are applied on big data. This paper reviews some of the different analytics methods and tools which are applied to big data. This paper also discusses possibilities of new applications of big data analytics in various decision domains.

VICENNIAL EVALUATION OF THE INDIAN ORGANIZED MANUFACTURING SECTOR

Kuhu Awasthi[1*]

Ph.D. Scholar, Department of Economics, Ambedkar School of Social Science, Babasaheb Bhimrao Ambedkar University, Lucknow.

Surendra Meher[2]

Associate Professor, Department of Economics, Ambedkar School of Social Science, Babasaheb Bhimrao Ambedkar University, Lucknow.

Despite the repeated shocks of COVID-19 pandemic coupled with unmanageably high rates of inflation, monetary policy tightening, supply chain disruptions, crude oil prices, global economic and financial recessions etc. in the recent years, India is on track to be the second fastest growing economy amongst the G20 nations in FY 2022-23. However, India has faced “jobless growth”, which is a concerning pattern wherein, unemployment remained persistently high even as the economy continues to grow over a significant period. Therefore, this paper investigates the trends and patterns in the Organized Manufacturing Sector of India which provides a growing potential for employing youth population whose employment rate stood at just 23.2 percent by the year 2020 according to World Bank estimates. This study analyses the current position of the manufacturing sector with respect to other sectors and uses national level Annual Survey of Industries data to better understand the present scenario of key parameters in the complex landscape of the nation’s Organized Manufacturing Sector.

Keywords: Organised Manufacturing, Annual Survey of Industries, Employment Growth, Output Growth, Trend Analysis

DATA SCIENCE AND MANAGEMENT IN UPCOMING DECADE

Er. Jaishree
(HoD. Computer Science), LBSIMDS

Due to the advancement of technology and different machine learning techniques data bases has been increases day by day it's all possible because of the different scientific instruments techniques and computer simulations processes. As its requires new scientific methods to analyze and organized data. Every year the volume of databases are approximately doubled, so there is the need to improve its quality for proper visualization and for this we have to watch minutely of several subtle effect that have been arises in several researches or in another word that has been missed by previous studies. To effectively examine and validate various hypotheses, it is necessary to create several queries, correlate disparate data, and create insightful visualizations of both the simulated processes and observed phenomena. Visualization would get appropriate when it combines in a system called VisTrails. This system represents our initial attempt of scientific discovery process for becoming fruitfulness and reducing the time of insights. Things would be more systematized and managed if proper trends and emerging trends (Artificial Intelligence, Machine Learning and Deep Learning) will be combined and correlated with measurable parameters.

Keywords: Data Science, Data Visualization, VisTrails, Artificial Intelligence, Machine Learning, Deep Learning.

"RESHAPING BANKING TECHNOLOGY: THE IMPACT OF DATA SCIENCE ON TECHNOLOGICAL SERVICES"

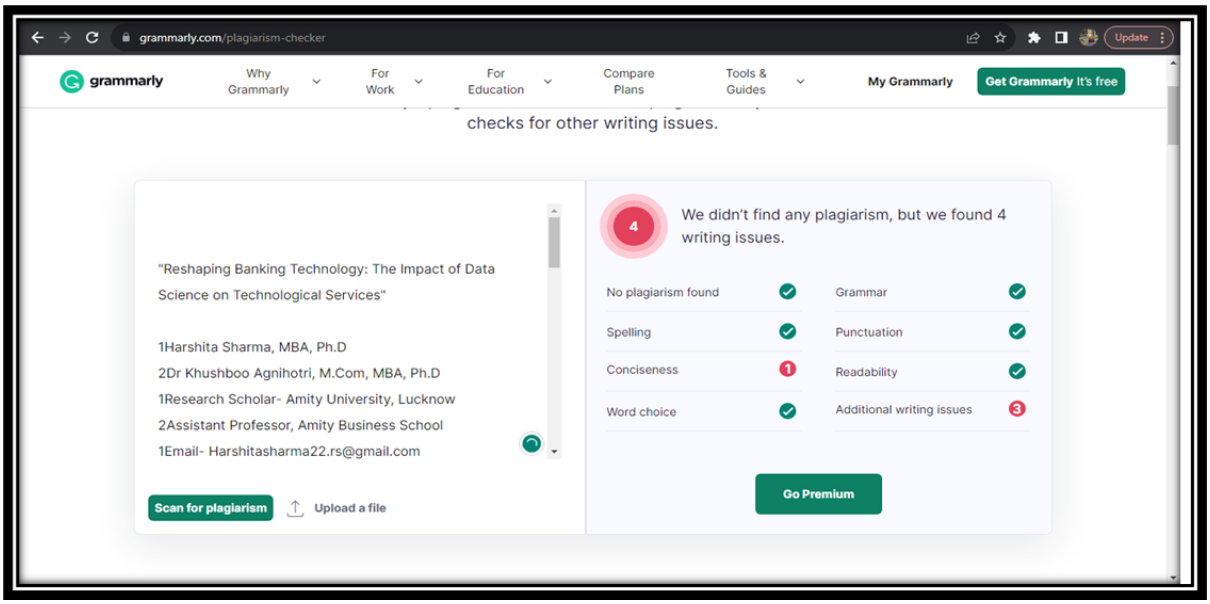
[1]Harshita Sharma, MBA, Ph.D
[2]Dr Khushboo Agnihotri, M.Com, MBA, Ph.D
[1]*Research Scholar- Amity University, Lucknow*
[2]*Assistant Professor, Amity Business School*
[1]*Email- Harshitasharma22.rs@gmail.com*
[2]*Email-kagnihotri@lko.amity.edu*

Data science's integration into the banking sector is reshaping how technology services are delivered. This paper delves into the transformative effects of data science on banking technology, emphasizing efficiency, security, and customer-centricity. Further, its function in enhancing consumer experiences is also studied, providing customized suggestions and personalized interactions based on individual activity. This encourages loyalty and reframes expectations for digital banking.

The paper highlights data science's contribution to security through real-time fraud detection. By identifying unusual transaction patterns, data science fortifies banks against fraudulent activities, safeguarding customer assets. Data science's influence on risk assessment and decision-making is discussed, enabling banks to make informed lending and investment choices by analysing diverse data sources.

As data science optimizes resource allocation, lowers costs, and simplifies processes, operational efficiency and improves customer experience as a result. The paper highlights the ability of data science to automate monitoring and ensure compliance with complicated laws, demonstrating its competence in regulatory compliance. Emerging services like chatbots and prediction technologies are highlighted for their effects on engagement and customer support.

In conclusion, data science is a critical factor in developing banking technology and offers efficient, secure, and practical services. The banking industry and consumer experiences are about to change due to this transformation.



NATURAL LANGUAGE PROCESSING

Hafsa Inam, Amity School of Engineering and Technology, Lucknow

hafsa.inam@s.amity.edu

It was in 1950 that Alan Turing wrote about Natural Language Processing in his articles- "Computer Machinery and Intelligence". Along with it, he proposed what is today called 'Turing Test'. In simple terms, Natural Language Processing or NLP, is a type of artificial intelligence that deals with analysing, understanding and generating human languages so that computers can process written and spoken human language without using computer-driven language. Natural Language Processing, sometimes also called "Computational Linguistics", uses both semantics and syntax to help computers understand how humans talk or write and how to derive meaning from what they say. The field combines the power of artificial intelligence and computer programming into an understanding so powerful that programs can even translate one language into another reasonably accurately. This field also includes voice recognition, the ability of a computer to understand what you say well enough to respond appropriately.

Natural Language Processing has made huge progress over the last decades. NLP researchers have developed a wide range of algorithms and tools to deal with large text corpora and give various insights into the meaning of the natural language text. For example, part-of-speech tagging gives you the grammatical use of each word and topic modelling extracts the most probable topics for documents in a text corpus. The access to the research results in Natural language processing is easy as there as several great books and open-source libraries available. They provide us with means to analyse the natural language data from our software projects. Natural Language Processing is based on deep learning. It leverages data patterns and artificial intelligence to come to a conclusion. It tries to find a relation between samples of data and assimilate them together into the desired outcome. The algorithm uses descriptive and predictive analytics to come to results.

Examples of Natural Language Processing

- Email filters: Email filters are one of the most basic and initial applications of NLP online. It started out with spam filters, uncovering certain words or phrases that signal a spam message.
- Smart assistants: Smart assistants like Apple's Siri and Amazon's Alexa recognize patterns in speech thanks to voice recognition, then infer meaning and provide a useful response.

- Search results: Search engines use NLP to surface relevant results based on similar search behaviours or user intent so the average person finds what they need without being a search-term wizard.
- Data analysis: Natural language capabilities are being integrated into data analysis workflows as more BI vendors offer a natural language interface to data visualizations. One example is smarter visual encodings, offering up the best visualization for the right task based on the semantics of the data.

AN IMROVED PHYTOREMEDIATION TECHNIQUE FOR SUSTAINABLE MANAGEMENT

Dubey Supriya Umesh Kumar[1] and Kumari Sunita[2]*

[1]Research Scholar, Department of Botany, D.D.U Gorakhpur University, Gorakhpur University, Gorakhpur -273009.

[2]Assistant Professor, Department of Botany, D.D.U Gorakhpur University, Gorakhpur University, Gorakhpur -273009.

Environmental degradation caused by the accumulation of diverse contaminants in soil, water, and air has raised urgent concerns worldwide. In response, phytoremediation has emerged as a sustainable approach that capitalizes on plants' unique abilities to mitigate pollution. This abstract introduces an advanced phytoremediation technique that significantly enhances both the efficiency and sustainability of pollutant management while simultaneously minimizing ecological risks. This innovative technique synergistically integrates the concepts of hyperaccumulation, cooperative microbial interactions, and state-of-the-art molecular tools to establish a comprehensive and effective strategy. By employing hyperaccumulating plants that possess remarkable capacities to accumulate pollutants within their biomass, this technique exploits natural processes to draw contaminants out of the environment. These hyperaccumulators are carefully selected based on their affinities for specific pollutants, rendering the approach adaptable to the particular pollutants at each site. Concurrently, this technique fosters beneficial microbial communities within the rhizosphere of hyperaccumulating plants, harnessing the microorganisms' capabilities to aid in the degradation, transformation, or immobilization of pollutants. This process not only amplifies the overall efficiency of pollutant removal but also promotes ecosystem health by enhancing soil structure and nutrient cycling. The integration of cutting-edge molecular tools is a distinctive facet of this approach, permitting the optimization of plant-microbe interactions. Genetic engineering empowers the modification of plants to express specialized transporters or

enzymes that enhance pollutant uptake and metabolism, while microbes can be engineered to possess augmented pollutant degradation capacities. Consequently, this molecular precision enhances the technique's effectiveness and adaptability. The sustainable attributes of this technique are underscored by its alignment with ecological principles; it mitigates the need for disruptive soil excavation methods, mitigates the risk of secondary pollution, and fosters long-term ecosystem recovery. In essence, the advanced phytoremediation technique presented here offers a holistic and innovative solution to contemporary pollution challenges. By harnessing the intrinsic strengths of hyperaccumulation, microbial cooperation, and molecular optimization, this technique provides a pathway to effectively restore contaminated environments while preserving ecosystem integrity for present and future generations.

Keywords: Phytoremediation, Sustainable management, Hyperaccumulating plants, Microbial interactions, Molecular tools, Ecological restoration, Pollution mitigation

ADVANCE DATA VISUALIZATION TECHNIQUES IN BUSINESS

Vandana Dubey[1], Priti Kumari[2], O. P. Singh[3]

[1]C. Byregowda Institute of Technology, Kolar, Karnataka, India

[2]Ashoka Institute of Technology and Management, Varanasi, U.P., India

[3]Amity School of Engineering & Technology, Amity University, Lucknow, U.P., India

vandanashuklaec05@gmail.com, priti19sep@gmail.com, opsingh@amity.edu

Data visualization techniques involve transforming complex data sets into visual representations such as charts, graphs, maps, and dashboards. These visualizations make it easier to understand, interpret, and communicate insights from data. Data visualization techniques serve as powerful tools across various industries and sectors. Advanced data visualization techniques have become instrumental in revolutionizing business operations and decision-making. These techniques involve the use of sophisticated tools and approaches to present complex data in intuitive and insightful ways. By leveraging these techniques, businesses can gain a deeper understanding of their operations, identify trends, and communicate information effectively. Interactive dashboards, heatmaps, 3D visualizations, and augmented reality representations are some examples of advanced data visualization techniques. These methods enable businesses to explore data from multiple angles, uncover hidden patterns, and derive actionable insights. Moreover, they facilitate real-time monitoring, allowing stakeholders to make prompt and informed decisions. In sectors like finance, marketing, and supply chain management, advanced data visualization techniques help in identifying market trends, optimizing advertising campaigns,

tracking inventory, and assessing financial performance. These techniques not only enhance the decision-making process but also facilitate communication of complex information across all levels of an organization. Data visualization techniques empower individuals and organizations to extract meaningful insights, detect patterns, and communicate findings effectively. They play a pivotal role in enhancing decision-making, driving innovation, and enabling a deeper understanding of data-driven concepts. In essence, advanced data visualization techniques empower businesses to transform raw data into meaningful narratives, driving efficiency, innovation, and strategic growth.

Keywords: Advance Data Visualization Techniques, 3D Visualizations, Augmented Reality, Time Series Visualizations, Word Clouds, Interactive Dashboards.

DATA MANAGEMENT FOR INTEGRATED WATER RESOURCES MANAGEMENT

Dr. Smriti Khare

Amity School of Applied Sciences, Amity University Uttar Pradesh (AUUP), Lucknow Campus

Information Technology helps in the management of water resources by facilitating the collection and analysis of data. It provides improved data for decision making in both rural and urban areas. It also helps in mapping of water resources, climate changes and flood management etc. Water Resources Management (WRM) is basically the process of planning, developing, and managing water resources, in terms of both water quantity and quality, across all water uses. It includes the institutions, infrastructure, incentives, and information systems that support and guide water management. Water information and data bases are used for addressing environmental, physical, social, political, economic, and ecological issues of water supply, consumption, availability and accessibility. The database displays information about the chemical and radioactive contaminants detected in drinking water and how these concentrations compare to federal legal limits and health guidelines. Prioritizing water management helps you eliminate water waste, keep your water infrastructure operating in peak condition and using water efficiently decreases your water bill.

Keywords: Information technology, WRM, database, chemical.

EFFECT OF TRADE OPENNESS ON ECONOMIC GROWTH OF INDIA: AN ARDL MODEL ANALYSIS

Dr Shobhit

Associate Professor, Amity University Tashkent, Uzbekistan, shobbhit@amity.uz

This paper is an attempt to analyze the impact of trade openness on economic growth of India taking data of 62 years from 1960 to 2021. In this study real per capita GDP has been taken as a dependent variable (as a proxy of economic growth) and trade openness (total trade as a percentage of GDP) as an independent variable. In addition to this, five control variables are taken, which are: supply of labour force, gross fixed capital formation, government expenditure, inflation rate, and exchange rate. Using the ARDL bounds test it is found that the labour force, government expenditure and inflation rate have negative effect and the gross fixed capital formation and exchange rate have positive effect on economic growth of India. The important finding of the study is that the effect of trade openness on economic growth of India is positive but insignificant. As the estimated ARDL model satisfies stability tests (Ramsey RESET, CUSUM and CUSUM of squares tests), model diagnostic tests (normality of residuals, autocorrelation and heteroskedasticity tests) and robustness check (DOLS), the results of model are robust and reliable.The study suggests that Indian government should take steps to address challenges such as job creation, skill development, infrastructure improvement, managing inflation rate through effective monetary policy and creating a favorable investment climate to boost economic growth.

Keywords: Economic growth, labour force, gross fixed capital formation, government expenditure, trade openness, ARDL model, India

EFFECTIVE DATA MANAGEMENT FOR AGRICULTURE BUSINESS DOMAIN

Vandana Dubey[1], Kavita Patel[2], G. R. Mishra[3]

[1]C. Byregowda Institute of Technology, Kolar, Karnataka, India

[2]Ashoka Institute of Technology and Management, Varanasi, U.P., India

[3]Dr. Rammanohar Lohia Avadh University, Faizabad, U.P., India

vandanashuklaec05@gmail.com, kavita.work22@gmail.com, grmishra@gmail.com

Effective data management is crucial for the agriculture business domain as it helps optimize operations, enhance decision-making, and improve overall efficiency. This article presents a comprehensive guide to effective data management in the agriculture business domain. It is a strategic approach that involves the organized collection, storage, integration, analysis, and utilization of data to enhance operations and decision-making in the agricultural sector. By leveraging advanced technologies such as IoT sensors, AI-driven analytics, and real-time

monitoring, this practice enables farmers and agribusinesses to optimize crop yields, manage resources efficiently, predict disease outbreaks, and adapt to changing market conditions. With a focus on data security, compliance, and scalability, effective data management empowers the agriculture industry to embrace data-driven practices for sustainable growth and improved productivity. The utilization of advanced data handling techniques in the agriculture business has led to a transformative shift in the industry's operations. These techniques, such as precision agriculture, predictive analytics, IoT integration, machine learning, and data fusion, enable farmers and agribusinesses to make informed decisions that drive efficiency, sustainability, and profitability. By harnessing the power of real-time data from various sources, including sensors, satellites, and market trends, these techniques empower agricultural stakeholders to optimize crop management, resource allocation, supply chain logistics, and risk mitigation. Ultimately, the use of advanced data handling techniques revolutionizes traditional farming practices, paving the way for a more resilient and technology-driven agricultural sector. Effective data management in the agriculture business domain requires a holistic approach that incorporates technology, domain expertise, and a commitment to leveraging data for improved outcomes.

Keywords: Advance Computation Techniques, Data Analytics and Machine Learning, Scalability and Future Readiness, Big Data and Cloud Computing, Data-Driven Decision Making.

ENHANCING UNDERSTANDING AND COMMUNICATION THROUGH DATA VISUALIZATION

Dr. Shahnaz Fatima
Assistant Professor, Amity University,Lucknow, Sfatima1@lko.amity.edu

Data visualization has emerged as a powerful tool in our data-driven world, serving as a bridge between complex datasets and human comprehension. Data visualization is not merely a tool for displaying data but a means to enhance understanding, foster effective communication, and drive informed decision-making in an increasingly data-rich world. This paper explores the significance, methods, and impact of data visualization in contemporary contexts across various fields. Drawing from a comprehensive review of the existing literature, we will explore the evolution of data visualization techniques and their growing importance in aiding decision-making processes.

This paper describes various applications of data visualization, ranging from business analytics to scientific discovery and healthcare management.

USE OF DIGITAL TOOLS IN EDUCATION

Dr. Satyarth Prakash Tripathi
Professor of English, Amity University, Lucknow

Education is something that is related to improvement, interaction, enlightment and uplifting of learners, while information and communication technology has introduced some breakthroughs in delivering education.

Smart classes equipped with multimedia contents facilitates easy and speedy learning teaching techniques, which are more communicative and participatory, contrary to the outmoded teaching methods.

In the last decades, contemporary educational system globally has witnessed some revolutionary and remarkable reforms henceforth, revamping the educational sphere digitally. Digitization in education is a fast driven emerging trend promoting various teaching-learning upgrades, amid rapidly growing edification reforms.

Extensive use of digital tools in education by Gen-Next students will not only enhance the edification system but will also strengthen the scope of technology.

ARTIFICIAL INTELIGENCE: DETECTION OF HEAVY METALS TOXICITY ON HUMAN BEING

Dr. Richa Khare
Amity School Of Applied Sciences, Amity University Uttar Pradesh (AUUP),
Lucknow U.P.

Heavy metals are metallic substances which easily enter biotic and abiotic systems through natural and human activities. Heavy metal poisoning is the accumulation of heavy metals in toxic amounts in the soft tissues of the body. Symptoms and physical findings associated with heavy metal poisoning vary according to the metal accumulated. Many of the heavy metals, such as zinc, copper, chromium, iron and manganese are essential to body function in very small amounts. But if these metals accumulate in the body in concentrations sufficient to cause poisoning, then serious damage may occur. The heavy metals most associated with poisoning of humans are lead, mercury, arsenic and cadmium. Heavy metal poisoning may occur because of industrial exposure, air or water pollution, foods, medicines, improperly coated food containers, or the ingestion of lead-based paints. The detection of HMs from environmental and human samples has been performed by techniques such as atomic adsorption spectrometry (AAS) and inductively coupled plasma mass spectrometry (ICP-MS). With the advancement of AI-

based technology, HMs are now detected and removed from the environment and human systems. This review discusses the impact of HMs on the environment and human health, their detection and removal techniques, and the integration of recent advancements in AI-based technology for the detection and removal of HMs from environmental and human samples.

Keywords :AAS, AI, chemical, ICP-MS, HM.

PERFORMANCE EVALUATION OF VEHICULAR COMMUNICATION OVER DSRC AD HOC NETWORKS

Sachin Kumar[1], Pragya[2]
[1]Amity University Uttar Pradesh, Lucknow Campus,
[2]MVD College, Lucknow, skumar3@lko.amity.edu, dr.pragya2011@gmail.com

Vehicular communication for intelligent transport system (ITS) employs dedicated short-range communications (DSRC) technique as the key enabling technologies for efficient and fail-safe communication. Wireless access in vehicular environments (WAVE) is significantly different from the Wi-Fi and cellular wireless networking environments. The specifications defined by IEEE802.11P and IEEE1609 represent the most mature set of standards for DSRC/WAVE networks. study presents a delay-critical safety applications over vehicular ad hoc networks based on the emerging dedicated short-range communications (DSRC) standard. Traffic accidents and traffic jam remain a major social issue. The emergent IEEE 802.11p-based Dedicated Short Range Communication standard – one of the IEEE 802.11 standards customized for highly mobile, severe fading vehicular environments – paves a new direction for creating cooperative Vehicle Safety Communications (VSC) systems. Work quantifies the bit error rate, throughput and latency associated with vehicle collision avoidance applications running on top of mobile ad hoc networks employing the physical and MAC layers of DSRC. The primary challenge in the work proposed is to develop scalable, robust, low-latency and high throughput technologies for safety applications that will significantly reduce collisions and save lives and property loss.

Keywords: WAVE, DSRC, IEEE802.11P, IEEE1609, VANET, OFDM, QoS, scalability, latency, throughput.

CLOUD SERVICE SELECTION BASED ON USER INTENTIONS IN DIGITAL SERVICES ECOSYSTEM

Shalini Agarwal

Amity School of Engineering and Technology Amity University Lucknow, India
sagarwal@lko.amity.edu

Cloud Computing industry has noticeably transformed business approaches from traditional product-centric to more flexible and economic service-oriented models. Business decision makers strategize on improving not only physical products but also the associated services that may enhance the overall customer experience. This paradigm shift has led to the emergence of service ecosystems which thrives on collaboration among organizations and individuals from different domains, combining their expertise and resources, pooling their expertise to offer comprehensive solutions that meet customer needs. In such ecosystems, users exhibit dynamic behavioral patterns while selecting services offered by different service providers of the ecosystem. Moreover, their behavior may be different in different context. In this paper such behavioral pattern is termed as user intentions. This paper presents a model to select a web service based on intention score of individuals. The proposed model helps users find appropriate services for their own contexts without the any human interaction or expert advice. It takes a list of users preferences and a list of web services as input and produces a 'similarity score'. Ppersonalization based on intentions leads to more enjoyable interactions in the ecosystem.

Keywords—Cloud Computing, Digital Service Ecosystem, Intention Score, Preferences, Quality of Services (QoS), Similarity Score

WEB DEVELOPMENT

Prateek Kumar, Amity School of Engineering and Technology
prateek.kumar.original@gmail.com; prateek.kumar4@s.amity.edu

Web development has experienced a remarkable transformation, continuously adapting to the dynamic landscape of technologies, user expectations, and business requirements. In the present digital era, websites have evolved into indispensable assets for a wide range of entities, including multinational corporations, enterprises, startups, graphic designers, and developers. The pervasive influence of websites on businesses has elevated them to a pivotal role within the global economy. Establishing a strong online presence has become imperative for businesses, enabling them to extend their reach to a global scale. The success or failure of the customer-seller relationship can hinge solely upon the aesthetic appeal and functionality of a website. Consequently, it is essential for businesses to invest in a robust and visually captivating online platform. This research paper delves into a comprehensive analysis of the MERN (MongoDB, Express, React, Node) tech stack, which stands as one of the most widely embraced frameworks globally used in web development. The MERN tech stack encapsulates a comprehensive suite of tools and frameworks that synergistically work together to streamline the web development process. MongoDB, a NoSQL database, provides a flexible and scalable solution for managing

data, while Express.js facilitates the creation of server-side applications with ease. With the help of the powerful JavaScript framework React, developers can create dynamic, single page and interactive user interfaces, delivering an exceptional user experience. The final component, Node.js, enables server-side execution of JavaScript, facilitating seamless communication between the client and server. By emphasizing critical keywords that define the current web development landscape, this paper offers an extensive exploration of MERN's capabilities and its profound significance in empowering modern web applications.

Keywords: Web development, user experience, responsive design, front-end frameworks, back-end frameworks, JavaScript, CSS, HTML5, SEO optimization, performance optimization, security, cross-browser compatibility, RESTful APIs, MERN, MongoDB, NoSQL, Express, React, Node

CHANGING NATURE OF DATA IN 2023

Adesh Kumar Singh

Student, Amity University

In the dynamic landscape of 2023, the fusion of data science and analytics has transformed into a driving force across industries. In business, data science empowers organizations to make informed decisions by analyzing large volumes of data to identify patterns and trends. This enables companies to optimize processes, enhance customer experiences, and develop targeted strategies, thereby gaining a competitive edge.In healthcare, data science plays a pivotal role in precision medicine, where patient-specific insights lead to accurate diagnoses and personalized treatment plans. Predictive analytics aid in early disease detection and improving patient outcomes.In finance, data science enables risk assessment, fraud detection, and algorithmic trading, enhancing profitability and minimizing financial risks.In agriculture, data-driven insights optimize crop yields, resource allocation, and sustainable farming practices, addressing global food security challenges.Furthermore, data science contributes to scientific research, uncovering insights from large datasets in fields such as genomics, climate science, and particle physics.

The application of data science is also crucial in addressing societal challenges, from urban planning and traffic management to combating climate change and disease outbreaks.However, ethical considerations are vital, as the responsible use of data ensures privacy protection, bias mitigation, and transparent decision-making.In essence, the application of data science is pivotal for progress in virtually every sector, offering solutions to complex problems and driving innovation for a more informed and efficient world.

EMBARKING ON DATA'S FRONTIER: AN INTRODUCTION TO MODERN DATA RESEARCH

Dr. Andrey Shastri

Assistant Professor, Amity Institute of Liberal Arts, Amity University, Lucknow Campus

In the contemporary age of information, data has become more than just a buzzword; it is the driving force behind transformative advancements in science, technology, and business. As society generates colossal amounts of data every second, the need to harness its potential through meticulous research methodologies has never been more critical. This introduction serves as a gateway to the expansive realm of modern data research, offering a panoramic view of its significance, methodologies, and potential applications across various domains.Data research is not confined to a single discipline; rather, it serves as a multidisciplinary conduit through which questions are answered, patterns are discovered, and predictions are made. At its core, data research involves the collection, cleansing, and organization of data for analysis. It necessitates a delicate balance between technological prowess, statistical acumen, and domain expertise.While the prospects of data research are captivating, ethical considerations must underpin every step of the process. Ensuring data privacy, informed consent, and responsible data usage are paramount to maintaining public trust and safeguarding individuals' rights. This introduction acknowledges the ethical complexities and emphasizes the role of researchers in upholding the highest standards of integrity.Itinitiates a journey into the dynamic world of data-driven exploration. As we delve deeper into subsequent sections, the multifaceted layers of data research will unfold, offering insights into methodologies, tools, and case studies that exemplify the potential and transformative capacity of data in shaping our world.

USING DATADRIVENAPPROACHESTO PROMOTEEDUCATIONALENHANCEMENT

Anjali Singh
Research Scholar,Amity Business School, Amity University Uttar Pradesh
Lucknow Campus, Uttar Pradesh, India.

Azra Ishrat, Assistant Professor,Amity Business School, Amity University. Uttar Pradesh
Lucknow Campus, Uttar Pradesh, India.

The foundation for both individual and societal development is education.In recent years, schools and educators have started taking a data-driven approach to improve student performance. This paper explores the benefits and challenges of using data-driven approaches to enhance learning

outcomes. Traditional education approaches are being supplemented with modern practices that focus on using data and actionable insights to improve learning experiences. This highlights how data-driven approaches can transform traditional learning into more engaging and effective teaching methods.This approach uses data-driven insights to identify areas where students are struggling and provides targeted interventions to improve their performance. This approach helps educators identify struggling students earlier and provide interventions to prevent failure. A flexible learning model that allows students to choose their own learning journey, tailored to their specific competencies. This approach uses data-driven insights to identify gaps in student knowledge and provide custom interventions to fill them.Educators need to focus on actionable insights, prioritize student-centered learning, and foster a collaborative environment. As the education landscape evolves, data-driven approaches are becoming increasingly important for better learning outcomes. Though implementing these approaches may be challenging, the benefits of these methodologies are evident. Educators must embrace these new practices to ensure that all students can reach their potential.

Keywords: Data driven learning, education, educational enhancement, benefits of data driven approaches, challenges of data driven approaches.

"LEVERAGING DATA MANAGEMENT TOOLS FOR ENHANCED CUSTOMER SATISFACTION IN LUXURY HOTEL OPERATIONS "

Archana Sharma[1]
Research Scholar, Amity Business School, Amity University, Lucknow.
Dr.Alpana Srivastava[2]
Professor, Amity Business School, Amity University, Lucknow.

This research article probe deeply into the critical role of the data management tools in leveraging the customer satisfaction inside luxury hotel operations.Indeed, through enhancing and applying these tools highly personalised guest experience and customer satisfaction can be attained by the hotel though augmenting the efficiency of operations as well. Deep inside the paradigm is the (PMS) i.e. Property Management System, a prerequisite for smooth processes of guest arrival and departure and overall experience for the guest's stay. To empowering hotels regarding guest's preferences and getting ahead with the anticipating the various needs and to deliver the personised services (CRM) acts like a primary source. The relationship of these tools not only rationalise communication within the employees, but also make sure of well-coordinated service delivery. Data Analytical tools go ahead with orthodox analysis by enabling anticipatory challenges and issues resolution and campaigning for targeted marketing. Amalgamation of (IoT) Internet of things procedures, devices and guest Wi-Fi tracking refines

facility layouts and amenities oriented on real time expectation and behaviour patterns, providing / offering with the exact match of guest expectations.

Augmented pricing strategies, striking the balance between the perceived value and cost Revenue management tool is one of the greatest choice in luxury hotels. These tools play crucial role in collecting the guest feedbacks which leads to continues improved efforts in order to achieve and retain and meet as per the guest expectations with service delivery. Parallel, tools for data security assures safeguarding the guest information to enhance building trust by providing high end privacy assurance.Adaptation of data management tools empowers the luxury hotels to exceed from the paradigms traditional service delivery seamlessly. By providing custom-made guest experiences, effective operations, and data oriented modification, luxury hotels can cultivate a culture of excellence that reinforces eminent customer satisfaction in the dominion of luxury hospitality & hotels.

In conclusion, this research article highlights the reciprocal relationship between the data management tools and enhanced customer satisfaction in luxury hotels. These tools join to create an ecosystem where anticipation meets fulfilment, service delivery meets excellence and data meets delight.

Key words: - Property Management System (PMS), Customer Relationship Management (CRM), Service optimization, Operational Efficiency, Data Security

CONSUMER SENTIMENT AND BIG DATA ANALYTICS

Arohi Srivastava

Student, IIM, Raipur

Digital market in India is increasing at an increasing rate, thus generating huge amount of consumer data. This has generated data of consumer consumption, purchase intension, buying behavior and much more which could be analyzed for increasing market size, share and profit. Big data analysis is therefore becoming more and more important in analyzing market behavior and consumer sentiments. Though still market research is done in traditional ways using surveys and questionnaire method, but the output is generally very localized for prediction and hence the need of the hour is to utilize the daily generation of huge amount of data for more better understanding and predictions for the market research.Sentiment analysis is supposed to be a powerful way to keep a pulse on customers and even the broader population to understand changing needs of them and making market supply corrections. There are several types of customer sentiment analysis used in todays world and can be broadly classified as follows:

1. Fine-grained analysis measures sentiment by determining the polarity score of words in a text, from very positive to very negative. This is generally used and is very powerful.

2. Emotion detection identifies and analyses customers' emotions and moods within the text. While fine-grained analysis measures whether the customer seems positive or negative, emotion detection labels specific emotions.
3. Aspect-based sentiment analysis breaks text into parts—phrases, sentences, and tokens—and measures the accompanying sentiment.

With customer sentiment analysis, businesses can unearth customers' feelings, understand their actions, and make informed decisions that improve the customer experience.

Thus using this tool, we can sustain consumer loyalty, increase brand advocacy etc. In a highly competitive market where a buyer can churn at any time, real-time customer sentiment analytics is no longer a "nice to have." They're an essential tool to gain a deeper understanding of customers, drive brand loyalty, and empower your company to compete and thrive far into the future.

Keywords: Consumer sentiment, big data analytics, Emotion, text analysis, market research

ROLE OF DATA MANAGEMENT IN E - RETAIL INDUSTRY

Ms. Arveen Kaur[1], Prof. Dr.Alpana Srivastava[2]

[1]Research Scholar, Amity Business School, Amity University Lucknow, Uttar Pradesh.
[2] Professor, Amity Business School, Amity University Lucknow, Uttar Pradesh.

Businesses in the twenty-first century have been increasingly digitalized, and those who don't keep up frequently lose competitive advantages. Because of this digitalization, organizations' reliance on data and information has received more attention.Firms need to transform the culture of decision-making and foster abilities, skills, and competencies within the company in order to fulfil the objective of becoming a digital organization. Big data is the "next big thing in innovation" because it has the potential to provide commercial value. It may generate actionable suggestions for developing competitive advantages and delivering sustainable value by offering smart data. Therefore, data management plays a vital role in growing e-retail sector and is also affecting our daily lives.

Despite of growing interest in big data management in the field of research still some sectors of management are unexplored. Therefore, the purpose of this paper is to shed light on understanding the role of data management and thereby generating new results in e-retail industry. For achieving this paper goals, it attempts to collect secondary data from Journals, Articles, newspaper etc to get a broader picture of it.

Keywords – Data Management, Big Data, E – retail Industry, Innovation, Digitalization.

SMART FARMING USING IOT AND MACHINE LEARNING

Mr. Aryan Verma
Student, AIIT, Amity University, Lucknow,
Dr. Nidhi Srivastava, Asst. Professor, AIIT, Amity University, Lucknow

The fusion of Machine Learning (ML) and Internet of Things (IoT) technology has resulted in smart farming, sometimes called precision agriculture, and has caused a profound transformation in the agricultural sector in recent years. This research paper examines a wide range of innovative smart farming solutions that make use of IoT technology and machine learning to transform traditional agricultural methods.IoT sensors can be used to keep an eye on irrigation systems and soil moisture levels and ML models can make use of this data to improve irrigation schedules and reduce water waste. Based on images or other data, ML models can be used to detect pests and diseases in plants. With the aid of this knowledge, farmers may be able to control pests and diseases even before such losses occur. Nutrient levels in the soil can be measured using IoT sensorswhich ML models can utilize to suggest the quantity and timing of fertilizer applications.Also, IoT sensors can be used to track cattle's movement and keep an eye on their well-being. Farmers that use this information may make sure that their livestock is secure and healthy. The dynamic landscape of smart farming in which machine learning and IoT technologies are shaping agriculture's future,is paving the way for more sustainable, efficient, and productive agricultural practices.

IMPACT OF REMOTE WORKING ON THE PRODUCTIVITY OF EMPLOYEES.

Dr. Azra Ishrat
Assistant Professor, Amity Business School, Amity University, Lucknow

Remote working is where the representative can do their activity from home. Remote working gives an adaptable working hour to the representative just as the activity for the business is finished effortlessly. Remote working is useful to conveying work life parity to the representative, and furthermore parallelly causes the organization to complete the work. These days, a large portion of the businesses are offering this alternative to their representatives.

There are a number of advantages for a person working from home. There is more job applicant for a particular job with certain people with location constraint or disabled people can apply for the job. Even parents with children who tend to leave job can be retained for the job. There is more work life balance. Numerous individuals guarantee that an increasingly calmer or agreeable

environment is found at home which assists with focusing on the work just as they can finish the allocated work rapidly. There is a great deal of reserve funds regarding cost of office framework like spaces, power bills etc. Representatives feel propelled as they get a decent work life balance and improves their profitability.

There are numerous hindrances too. There is constantly a significant issue with observing the work. There is constantly a security issue with the information being moved and that can't be checked easily. All jobs are not suitable for Remote Working concept. Sometimes communication problem between employees makes it problematic for a job.

There are both advantages and hindrances with this Remote Working idea. Yet at the same time several organisations are offering this to itsworkers and this has been another pattern of work nowadays. The paper aims at exploring the benefits and challenges associate with Remote working. It also attempts to study how it is affecting the productivity of the employees.

DEVELOPING PROFICIENT DATA MANAGEMENT SKILLS: A CRUCIAL PREREQUISITE FOR EFFECTIVE DATA GOVERNANCE

Dr Charu Bisaria

Assistant Professor, Amity Business School, Amity University Uttar Pradesh, Lucknow Campus, Lucknow

In today's data-centric environment, the practice of data management demands a diverse skill set to ensure data integrity, security, and strategic utilization. This paper explores the essential data management skills required for practitioners to excel in this dynamic field. Emphasizing the significance of data literacy, database administration, data quality assurance, data ethics, and communication, the study unveils the core competencies needed to navigate the multifaceted landscape of data management effectively. The paper also highlights the importance of interpersonal skills, collaboration, and problem-solving capabilities in fostering productive interactions within cross-functional teams. With real-world case examples, this comprehensive examination underscores the practical implications of each skill. By enhancing these skills, professionals can elevate their data management practices, uphold ethical standards, and contribute to informed decision-making processes.

Keywords: data management skills, data literacy, database administration, data quality assurance, data ethics, communication, interpersonal skills, collaboration, problem-solving, decision-making

ANALYZING THE IMPACT OF PSYCHOGRAPHICS ON PERSONALIZED MARKETING EFFECTIVENESS: A DATA MANAGEMENT PERSPECTIVE

Mr. Gaurav Tewari * &Dr.CharuBisaria**

*Research Scholar, Amity Business School, Amity University Uttar Pradesh, Lucknow Campus

**Asst. Professor, Amity Business School, Amity University Uttar Pradesh, Lucknow Campus

Purpose of the studyThe research aims to uncover the relationship between psychographic insights and the effectiveness of personalized marketing strategies.

Adopting a data management approachThe study adopts a data management approach that combines psychographic attributes, such as psychological traits, values, beliefs, and lifestyle preferences, with other consumer data. By analysing this multidimensional dataset, the research aims to showcase how psychographics can enhance the accuracy and effectiveness of personalized marketing efforts.

Research methodology and analysis

The research methodology involves extensive data collection, pre-processing, and integration processes, ultimately leading to a detailed analysis of how different psychographic segments respond to personalized marketing content. The study seeks to measure the impact of psychographics on various aspects of marketing success, including engagement metrics, conversion rates, and customer satisfaction.

Expected outcomes and implications

The expected outcomes of this research include valuable insights into the effectiveness of psychographic personalization and its potential to strengthen the relationship between consumers and brands. By incorporating psychographic data into advanced data management strategies, businesses can develop marketing campaigns that genuinely connect with consumer motivations and preferences.

Conclusion

This article highlights the importance of understanding consumer behaviour in the era of personalized marketing. By combining psychographic insights with other consumer data, businesses can create precise and effective personalized marketing campaigns. This research aims to quantify the impact of psychographic personalization on marketing success and provide valuable insights for businesses seeking to craft campaigns that resonate with their target audience.

Keywords: Personalized Marketing Effectiveness, Data Management Perspective, psychographic insights, psychographic attributeslifestyle preference, psychographic segments

ANCHORING INFLUENCE ON WORKING WOMEN INVESTORS' INVESTING DECISIONS

HarshitaSrivastava
ResearchScholar,AmityUniversity,LucknowCampus,UttarPradesh,India.
Dr.SanaMoid, Assistant
Professor,AmityBusinessSchool,AmityUniversity,LucknowCampus,UttarPradesh,IndiaEmail
:smoid@lko.amity.edu,Mob:+91-9335071165

Purpose - The purpose of this research is to investigate how anchoring influences the dynamics of investment decision-making of working women investors trading in Indian Stock Market.

Research Methodology - A questionnaire is created, and 150 survey responses are gathered from working women investors who lives in Lucknow, Uttar Pradesh, India. In the current study, descriptive and inferential statistics are both employed.

Findings - The results indicate that working women investors are susceptible to being considerably impacted by the anchoring bias. Furthermore, increasing financial knowledge did not help to lessen the probability of anchoring; rather, it exacerbated it.

Research Implication - This study, ideally, would assist women investors in becoming more conscious of the influence of their own anchoring behavior on their stock market decision making, hence boosting the rationality of investment decisions for increased market efficiency.

Keywords- Anchoring, Investment Decision-Making, Working Women Investors

ROLE OF DATA ANALYSIS TOOLS IN PROMOTION OF SOCIAL RESEARCH – OPPORTUNITIES AND CHALLENGES

Dr Himanshu Rastogi
Associate Professor, Amity University Uttar Pradesh,Lucknow Campus.

Toady in the era of technology which is evolving continuously with a pace beyond imagination and with the advent of electronic mode of marketing along with over dependence on mobile

devices to stay connected giving rise to phenomena of "Anytime, Anywhere and Whenever" style of transactions. It seems that this has made life more comfortable but at the same time have posed new dimensions of challenges to cope up with relating to health aspects, environmental issues and depleting social norms one hand and mental and psychological disorders on other hand to cope with. In the changed environment we need a system to deal with these aspects quickly and the research should be such to address social issues and causes timely and promptly. In this background the use of technology in data analysis has increased to shorten the response and result delivery time for enabling timely formation of policies and laws to counter social stress and environmental & health issues. This is the reason for emergence of data analytical tools like Statistical Package for Social Sciences (SPSS), Statistical Analysis System (SAS), Minitab Statistical Software etc. Apart from it we have been using R software for data computing, data analysis and graphics. The paper tries to focus on role of data softwares in promotion of research and associated difficulties faced by research scholars in making use of these resources. Also, the paper tries to find out how this new system of data analysis produced huge financial opportunities to data analytics and data firms by putting enough monetary burden on helpless scholars. The paper recommends that it is high time to make it mandatory in the form of essential skill enhancement course for all doctorial scholars to undergo Data Collection, Data Interpretation and Data Analysis aspects via using online computation softwares.

Key Words: Technology, Data Analysis, Social issues, Data Softwares. Skill Enhancement Course

MACHINE LEARNING IN HEALTHCARE – AN ESTIMATION OF UPSIDE AND DOWNSIDE

Dr Hitesh Keserwani,
Assistant Professor, Amity Business School, Amity University, Lucknow.
hiteshkeserwani@gmail.com

Every aspect of the industry is increasingly being impacted by machine learning (ML). Recently, there has been a huge surge in interest in decision support applications in the healthcare industry, including those pertaining to diagnosis, forecasting, planning of treatments, etc. There has been a rush to adopt machine learning (ML) and artificial intelligence (AI) in this industry during the last few years. Applications of machine learning (ML) are significantly changing the healthcare industry. The goal of machine learning (ML), a branch of artificial intelligence (AI), is to increase the efficiency and accuracy of medical work. Utilizing ML in the healthcare industry has the potential to revolutionize this industry. In games like chess and go, where both the rules and the "win conditions" are well defined, but in case of medical field this is not the case. Medical professionals don't always agree on how to treat patients, and even the winning criteria

of being "healthy" is not universally accepted. Ghassemi, who received her doctorate in 2017, writes in an article that was released on January 2014 in the journal Patterns explains that the AI technologies train themselves by processing and analyzing enormous amounts of data. However, the information they get was generated by people, and since people make mistakes, their judgements could be tainted. This is especially valid given that people interact with patients differently depending on their age, gender, and race. This paper examines machine learning (ML) and the necessity for it in the field of healthcare before discussing its features and fitting pillars for use in healthcare architecture. Finally, it identifies and explores the positive and negative applications of ML for healthcare and offers a framework for how healthcare operations can be incredibly beneficial to the company by reducing the negative impact with suggested approaches.

Keywords: Machine Learning, Artificial Intelligence, Healthcare, Automation, Treatment

THE MANAGEMENT OF 360-DEGREE FEEDBACK IN THE LIGHT OF DATA SCIENCE

Dr. Jayanti Srivastava
Assistant Professor, Amity Business School, Amity University, Lucknow.

Methodology of performance evaluation is supposed to be one of the most sensitive jobs. The data related to this has numerous dimensions as it involves humans and their emotions. There are many choices available for performance evaluation and developing tools for the same. 360-degree performance review has gained popularity in recent years. This may be the result of the perceptions of organizational leaders that 360-degree feedback system establishes culture for continuous learning and improved performance. This paper highlights that the 360-degrees review process can be better and more effective if supported by data science and management of data in a significant relationship between the organizations and 360-degrees appraisal tool. The paper recommends that the organizations now should evaluate the outcomes of 360-degree appraisal system and compare with the help of modern techniques of data tools/methods.
The details of this paper also reveal that in some organizations people praise the multi-rater feedback and on the other hand some say it leaves people feeling betrayed and broken confidences. It would be beneficial to incorporate 360-degree feedback into a larger performance management process with the help of data sciences.

Keywords: 360-Degrees Appraisal Tool, Data Science, Data Management Effectiveness, Performance Evaluation

ECONOMIC SHOCKS AND CRIME: EVIDENCE FROM THE INDIAN ECONOMIC REFORM 1991

Karan Kumar

Research Scholar, Amity Business School, Lucknow

The prospective study examines the effect of economic change on the crime. We will exploit the data of economic reform of 1991, as a natural experiment generating exogenous shock to local economies. We will record the impact of liberalized economic policy on crime with help of descriptive and inferential statistical tools, implication of correlation and regression models on by taking in account of different variables.Inferential statistics enables us to make conclusion about crime based on a small sample size. We will show that economic shocks and reforms may have affect on crime. The potential determinants of crime can be labour market conditions, income inequality, poverty, unemployment etc.

We propose empirical framework examining the different reactions of these variable by implying different descriptive and inferential statistical tools. The expected result indicates that there is effect of economic changes on crime.

This examination will help us to measure the magnitude of incarceration and rate of unemployment. Increase in crime suggest that economic changes and shocks offers increasingly attractive chances to rise the magnitude of crime.

A STUDY ON INTRICACIES OF DATA MANAGEMENT IN TECH-DRIVEN WORLD

Dr Khushboo Agnihotri
Assistant Professor, Amity Business School, Amity University Lucknow Campus

The contemporary landscape of data management has become increasingly complex and dynamic, demanding a comprehensive approach that transcends traditional boundaries. This abstract delves into the concept of a multidisciplinary approach for data management that draws upon diverse fields to address the intricacies of data in today's information-driven world.

The proposed multidisciplinary approach advocates for the convergence of expertise from computer science, information technology, statistics, domain-specific knowledge, and ethical considerations. By amalgamating these disciplines, organizations can effectively harness, process, analyze, and derive insights from vast and heterogeneous datasets. This approach transcends the limitations of siloed thinking, allowing for a holistic understanding of data that extends beyond technical aspects.

The abstract underscores the significance of multidisciplinary in tackling challenges such as data privacy, security, scalability, and ethical dilemmas. It emphasizes that the collaboration between experts with varying skill sets fosters innovation and enables the development of robust data management strategies that adapt to evolving technologies and regulatory landscapes.

Furthermore, the abstract highlights case studies illustrating the benefits of this approach in real-world scenarios, underscoring its potential to enhance decision-making, optimize operations, and drive meaningful advancements across industries.

In conclusion, the multidisciplinary approach for data management presents a paradigm shift, acknowledging the multifaceted nature of data challenges. By embracing expertise from a range of disciplines, organizations can unlock the true potential of their data assets, ultimately leading to informed decisions and sustainable progress in the data-driven era.

Keywords: Data Privacy, Security, Data Management, Technology

ROLE OF DATA ANALYTICS IN HUMAN RESOURCE MANAGEMENT

Kirti Wadhawan

Asst. Professor, Dr. VSICS, Kanpur

The 21st century businesses are taking a stellar shift from their rudimentary structure of working in the modern world. The uncertain economic conditions and cut throat competition had made modern HR managers, to not only pick up the gauntlet, but also to think unconventionally in their respective domains of performance. Data turned as a thriving force behind every decision. Due to enhanced utility of data management and analytics, modern business organizations are backing even their minutest of the policy or decision making judgement with that of data. Hence proofing the say, 'Data is the new oil'. It is in this context, important to highlight the relevance of data analytics for the HRM in specifically. Today the dependency on Data Analytics has increased to a level beyond by the HR managers for meeting their Human Resource centric goals. The goal of this paper is evaluate the correlation between data analytics and HRM. The paper will highlight the utility of data analytics in making HR decisions. The paper is framed using secondary data sources, particularly like journals, articles and research papers.

Keywords: - HRM, HRD, Data Management, Data Analytics, Human Resource.

"ECO-FASHION REVOLUTION: MACHINE LEARNING FOR PREDICTING CONSUMER BEHAVIOR IN ONLINE PURCHASES"

Prof. (Dr.) Rohit Kushwaha[1] Manish Mishra[2]
[1]Professor & Director, Amity Business School, Amity University Uttar Pradesh, Lucknow Campus, India, rkushwaha@lko.amity.edu
[2]Research Scholar, Amity University, Lucknow, Uttar Pradesh, India, manish.mishra7@student.amity.edu

In the field of fashion, machine learning has opened exciting possibilities for data-driven analysis and prediction of consumer behavior. Our paper focuses on the application of machine learning to forecast user behavior in the context of online purchase of eco-friendly clothing. Our study concentrates on the application of machine learning in predicting user behavior in the online purchase of eco-friendly clothing, within the fashion industry. Our research has significant implications for the fashion industry, particularly in the sustainable and eco-friendly fashion sector, as it helps brands gain deeper insights into consumer preferences and behaviours, facilitating more tailored and effective marketing strategies. Real-time, data-driven feedback and analysis enable these brands to adapt swiftly to changing trends and consumer demands, fostering sustainability in the fashion industry. In summary, this paper showcases how machine learning empowers the eco-friendly fashion sector to provide personalized, sustainable, and eco-conscious fashion experiences by comprehensively deciphering and anticipating consumer behavior.

Keywords: machine learning, eco-friendly clothing, consumer behavior, fashion industry, sustainability.

EXPLORING THE LINK BETWEEN CORPORATE DISCLOSURES AND FINANCIAL PERFORMANCE: THE ROLE OF ESG RATINGS AND DATA ANALYTICS

Meghna Thariani

Research Scholar, Amity Business School Lucknow

The study examines the connection between corporate disclosures and their effects on financial measures and stock market performance.

The ESG ratings and investor confidence are then examined, along with the possibility of accelerating the achievement of the sustainable aim by fusing the ESG ratings with data analytics.

Future generations of ESG scores will heavily rely on data analytics. Large amounts of data, including financial reports, sustainability disclosures, and industry benchmarks, will be analyzed using cutting-edge technology like artificial intelligence and machine learning.

These new tools will make it possible to examine businesses' ESG practices in a more precise and thorough manner. ESG scores will become more dynamic and responsive to shifting sustainability trends by utilizing data analytics. The company's ESG scores can be raised by identifying these areas for improvement.

By doing so, investors will be better equipped to make educated choices and feel more secure about the company. Investors can determine whether the Company's vision is in line with their financial objectives by examining ESG elements. Data analytics will accelerate the adoption of sustainable business practices globally and lower the risk of investing in companies with low ESG scores.

PRODUCTION FUNCTION ESTIMATION IN ASI PANEL DATA USING NON-LINEAR MODELS

Meghna Athwani[a]* and Rajeev Pandey[b]

[a]AssistantProfessor,Department of Statistics, Shri Jai Narain Misra Post Graduate College, Lucknow, India

[b]Professor, Department of Statistics, University of Lucknow, Lucknow, India

The study focuses on the use of Annual Survey of Industries panel data to compare the performance of four methods, viz; Linear – Log, Log – Linear, Quadratic Polynomial, and Inverse – Linear,used to analyse such data. Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) have been used to compare the result of the estimates obtained from the four methods. The comparison of the results showed that the analysis done with the help of Log-Linear model gives the smallest value of AIC and BIC. This made the Log-Linear model to be more superior than the other three non – linear panel data models. The purpose of comparing these models is to find the most efficient model which can be useful for prediction of Total Output. After analysing the data using R software, it was found that Log-Linear panel data model is the best fit for this data.

KEYWORDS: Annual Survey of Industries; Panel Data; Non-Linear Model; R; AIC; BIC

CULTURAL DIVERSITY AND ITS DATA MANAGEMENT AT WORKPLACE

Namrata Anand
Research Scholar, Amity Business School, Amity University Uttar Pradesh,
Dr Richa Raghuvanshi,
Assistant Professor, Amity Business School, Amity University Uttar Pradesh,

As workplaces become more diverse, managing cultural diversity has become crucial. However, data management poses significant challenges. This abstract presents the importance of cultural diversity, challenges in managing cultural diversity data, best practices, strategies for creating a culturally inclusive workplace, and technology solutions. Many studies have shown that a diverse workplace can provide many benefits, including enhanced creativity, better problem-solving, improved productivity, and increased innovation. Companies that have a diverse workforce are more likely to understand their customers' needs and develop solutions that cater to them.Collecting data on cultural diversity can be challenging because people may not wish to share their ethnicity or identity, and there are different ways to classify people by their cultural background. Protecting sensitive information is essential. Data breaches can negatively impact employees and lead to legal consequences for companies. Employees should have control over their data privacy. Businesses can turn to cloud-based diversity and inclusion software solutions to track, monitor, and analyze the cultural diversity of their workforce. Artificial intelligence can provide predictive insights to improve HR practices and identify areas for improvement. Managing cultural diversity data is a critical task for any organization. By following best practices, companies can create a culturally inclusive workplace, ensure employee privacy, and reap the benefits of a diverse workforce. With technology solutions, companies can streamline and improve the data management process, leading to a healthier and more productive workplace.

Keywords: Cultural diversity, workplace, artificial intelligence, HR policies, cross-cultural challenges, Indian organisations.

IMPORTANCE OF COMMUNICATION FOR COLLABORATION IN DATA SCIENCES *

*Dr. Neerja Sinha, Assistant Professor , Avadh Girls' Degree College , University of Lucknow , Lucknow

Over the last decade, the field of Data Science has experienced consistent growth, and there are no indications of this trend slowing down. The stake holders across all sectors,right from

education, heathcare , banking , finance and entertainment to telecommunication and so on are increasingly dependent on Data Scientist to help them to be future prepared.

Data Science encompasses a blend of historical and contemporary, conventional and innovative elements. Numerous tools and methods within the realm of this field have been drawn from many different disciplines. They are based on past practices based on principles from the core mathematics, statistics, management , business studies , human behavior and to the ever evolving computer science. This convergence is absolutely necessarybut is quite dependent on the collaborative inputs from all discipline which would be attained only by proper communication

"NAVIGATING CHALLENGES IN MODERN DATA MANAGEMENT: EXPLORING COMPLEXITIES, INNOVATIONS, AND STRATEGIES"

Neha Singh[1*] and Sana Moid [2]

[1]Research Scholar, Amity Business School, Amity University, Lucknow.

[2] Assistant Professor, Amity Business School, Amity University, Lucknow, India

In the modern context, data management serves as a cornerstone for organizations traversing the complexities of a data-centric environment. This essential process, however, is accompanied by an assortment of challenges and predicaments. This study deeply explores the multifaceted problems faced by organizations as they endeavour to effectively govern their data. These challenges span from conquering issues related to data quality and integration to ensuring the security and privacy of data, highlighting the intricate nature of managing diverse and extensive datasets. While technological advancements aid data management efforts, they also introduce challenges linked to scalability and compatibility. Furthermore, the evolving regulatory landscape adds an additional layer of complexity, demanding adept navigation by organizations. By extensively examining these challenges, this paper aims to provide insights into the continuously evolving domain of data management obstacles, while offering potential strategies to overcome them.

Keywords: Data Management, Challenges ,Data Governance and Technological Advancements

DATA SCIENCE AS EMERGING NEW BUSINESS TOOL

Nikita Srivstava,

Student, Amity Business School, Amity University, Lucknow, India

In the contemporary landscape of 2023, data science has become an integral and multifaceted approach that permeates various domains, catalyzing innovation, operational efficiency, and ethical standards. Within the healthcare sector, data science has evolved into a pivotal tool for predicting and preempting disease outbreaks by scrutinizing patterns within health-related data. It enhances healthcare quality by optimizing treatment plans through the personalized analysis of patient data. In the financial realm, data science assumes a critical role in fraud detection by meticulously sifting through extensive transaction data to identify irregularities. Moreover, data science techniques are employed to refine algorithmic trading strategies, facilitating real-time, well-informed investment decisions.

Data science comprises a comprehensive set of principles, problem formulations, algorithms, and processes tailored for uncovering non-obvious and valuable patterns within extensive datasets. While data science shares common ground with related disciplines like machine learning and data mining, the terminologies are often used interchangeably. What binds these disciplines together is their shared objective of enhancing decision-making through data analysis. However, data science extends beyond these fields, encompassing various challenges such as acquiring, cleansing, and transforming unstructured data from sources like social media and the web. It also embraces big data technologies for storing and processing massive, unstructured datasets and delves into ethical and regulatory questions concerning data.

In essence, data science stands as a versatile and indispensable field, wielding its analytical prowess across sectors to drive progress, efficiency, and ethical standards in the ever-evolving landscape of 2023.

DATA SCIENCE – ROLE AND IMPORTANCCE INCURRENT BUSINESS SCENARIO

Dr. Nimish Gupta

Associate Professor, Amity Business School, Lucknow.

Science depends on data. Observational data points have served as the evidence that has allowed us access, accept, and discard scientific theories.To address research questions, data need to be collected, interpreted and analysed. As their collection is time and resource consuming, funding organisations increasingly demand their sustainability and free accessibility. Data Science plays a vital role in many sectors such as small businesses, software companies, and the list goes on. Data Science understands customer preferences, demographics, automation, risk management, and many other valuable insights. Data Science can analyse and aggregate industry data. It has a

frequency and real-time nature of data collection.The focus on data also immediately highlights other important and urgent issues in contemporary science, namely the reproducibility of results, the responsible treatment of potentially sensitive data, the transparency and openness of scientific data and processes, the attribution and recognition of data gathering and curation efforts, and the now widely accepted requirement that scientific data should be Findable, Accessible, Interoperable, and Reusable (FAIR).

Keywords : Data science, sustainability, accessibility, automation, risk management, FAIR.

INVESTOR BEHAVIOR IN CRYPTOCURRENCY MARKET IN INDIA

Pooja Kumari, &Prof. (Dr.) Alpana Srivastava
Research Scholar, Amity university Lucknow
(Professor), Amity university Lucknow

The emerging cryptocurrency market becomes more and more recognized around the globe. Therefore, it has become of great interest to policymakers, institutional investors, and individual investors. The new encrypted blockchain technology offers individual investors contemporary opportunities to invest contrary to traditional means. However, the volatile market presents instabilities and uncertainty for market participants creating a research gap for academics to investigate what poses these difficulties.

Purpose: The objective of the study is to investigate the determinants that affect individual investors' adoption intention of Bitcoin. By incorporating theories to understand investment behaviours and attitudes.

The sources of data collection are secondary data which includes collection from the published sources in the academic libraries, web sites, books, journals, magazines, etc.

Cryptocurrency market is relatively a new market introduced and as such, it is continuously developing. Some scholars argue that the respective market does not follow the same market fundamentals as other traditional financial markets. The study also attempts to find the factors affecting the investment behaviour of individual investors such as their awareness level, duration of investment etc.

Keywords: Cryptocurrency, Bitcoin,InvestorBehaviour, Attitude, Perception, Adoption Intention, Behavioural Finance

PRODUCTIVITY AND EFFECTIVENESS OF MICROFINANCE PROGRAM AS ASTRATEGY FOR POVERTY REDUCTION IN INDIA

Dr Praveen Kumar Sharma
Assistant Professor, Amity Business School, Amity University Uttar Pradesh Lucknow Campus

Microfinance has been available in South Asia for almost four decades and the concept being originally developed in Bangladesh. This innovative approach to poverty alleviation by fostering entrepreneurship was pioneered by Professor MuhammadYunus, aBangladeshibankinginnovatorawardedtheNobelPeacePrizein2006jointlywiththeGrameenBank. Thelonghistoryofmicro–financesawseveralchangesandinnovationsinitsoperationenabledby favourable policyreforms. It is now one of the most common development tools used to fight poverty in South Asia.

The scaling up of microfinance programs in India was due to the efforts led by the Self-Help Groups (SHGs) movement, where poor households from rural India are organized homogenous groups and pooled their money which was lent to the needy in the group in forms of credit.This approach enabling alternative paradigm seeks the engagement of microfinance program beyond credit schemes as a judicious blend of finance and development for addressing the many dimensions of poverty and community development.

Microfinance programs have potential with cooperation of other institutions to generate enough employment for the poor, increase in their standard of living, poverty alleviation, and improvement in literacy rates and thereby empower the nation as a whole. The present paper focuses on microfinance program/services from banks to beneficiaries and the impact of these program/services to SHGs/beneficiaries over there. This paper therefore will establish the need to empower the poor, which has been estimated to be on the increase through the operation of micro finance as a tool for poverty reduction.

FACTORS CONTRIBUTING TO STAFF TURNOVER IN THE HOTEL INDUSTRY: A REVIEW

Priyanshi Tiwari[1], Dr. Richa Raghuvanshi[2]

1-Phd Research Scholar, Amity University, Lucknow

2- Assistant Professor, Amity Business School, Amity University, Lucknow

Background: An organization's performance, productivity, and profitability are often damaged by staff turnover, which can also result in the loss of assets and resources. Employee education

and exposure were regarded as having a weak impact on turnover, whereas gender, age, and employee incapacity were rated as having a very weak impact.

Objectivity: The purpose of this study was an attempt to understand the factors influencing turnover in the hospitality industry.

Method: this review collected the information from web of science, Google scholar, and science direct, Scopus from the year 2000-2023. The information was collected by using the keywords like hotel management, factor affecting hotel management.

Results: In order to retain staff, hotel management must create an employee-centric environment through purposeful and successful workplace procedures. Low coordination, low visitor happiness, low tourist arrival rates, and declining organizational performance have all been cited as significant contributors to staff attrition in the hotel industry.

Conclusion: The industry is thought to be particularly stressful, especially because personnel must deal with consumer requirements and wishes as well as unstable working conditions. It was suggested that hospitality facility management offer competitive pay and wages that are in line with the present market.

Keywords: Hotel Management, employees, productivity, turnover of employees in hotel industry, performance of employee, risk factors

A STUDY OF SKILLS FOR EFFECTIVE DATA MANAGEMENT

Rajkumar Srivastava*, Dr. Charu Bisaria**, Fariya Parveen***
*Research Scholar,Amity University Uttar Pradesh,Lucknow Campus
**Assistant Professor,Amity University Uttar Pradesh,Lucknow Campus
***Assistant Professor,SRMS International Business School,Lucknow

Effective data management is essential for organizations to harness the power of data and make informed decisions. This research paper delves into the core skills that are indispensable for practitioners in the field of data management. It examines the evolving technological ecosystem, including databases, data lakes, and cloud platforms, and how proficiency in these technologies is integral to successful data management practices. Furthermore, the study explores the regulatory and ethical considerations intertwined with data handling, emphasizing the significance of compliance and responsible data usage.

Based on an analysis of industry trends and expert opinions, the research identifies key skills such as data governance, data quality assessment, metadata management, data integration, and proficiency in data manipulation languages. Additionally, the paper emphasizes the growing

importance of soft skills such as communication, collaboration, and problem-solving, as data management often involves interdisciplinary teamwork.

It provides insights for educators, professionals, and organizations to understand the skill sets necessary for successful data management implementation in today's data-driven landscape. By cultivating these skills, individuals can navigate the challenges of data management effectively and contribute to optimized decision-making processes within their respective domains.

Keywords: Data management, Key skills, Interdisciplinary teamwork, Decision making

CAN THERE EVER BE A SPIRITUAL-BASED WORKPLACE? A PROPOSED CONCEPTUAL MODEL MEANING AND PURPOSE, SELF-TRANSCENDENCE, AND PERCEIVED ORGANIZATIONAL SUPPORT

Rashika Shukla[1*] and Dr. Amit Kumar Sinha [2]

Research Scholar Amity Business School Lucknow, Uttar Pradesh, India
Asso. Professor, Amity Business School Lucknow, Uttar Pradesh, India

Manyworkplacesconduct motivationalprograms,yogasessions,practicespiritualtechniques,andother activities to develop workplace spirituality. However, these programs andsessions are fordocumentationorreferralpurposes.Manyorganizationsvaluevirtueslikeappreciation,gratitude,commitment, and spirituality. Literature is replete with studies regarding spirituality at work.However, no literature provides wisdom about a workplace that's in its entirety a spiritual-basedone. In the current study, the authors relate to various theories from diverse domains whiledeveloping propositions and a conceptual model backingtheir argumentation. The current studynegatesthatpracticingvirtuesasspiritual values aloneorpracticingcompetition-inducedspiritualityaloneattheworkplaceresultsinaspirituality-basedworkplace.Theauthorsarguethata spiritual-based workplace is achieved more through meaning and purpose, elevating oneself toself-transcendenceandbeingsupportedbytheorganization.Hence,thepaperstudiesthesignificanceofmeaningandpurposemediatedbyself-transcendenceandmoderatedbyperceivedorganizationalsupport in achievingaspiritual-based workplace.

Keywords:meaning,purpose,self-transcendence,Spiritual-basedworkplace, Spirituality

DATA SECURITY IN THE DIGITAL AGE: A MULTIDISCIPLINARY APPROACH

Ms. Rashmi Tripathi

Assistant Professor, Amity Business School, Amity University, Lucknow

The digital age has brought with it a new set of challenges for data security. As more and more data are being stored and transmitted electronically, it is becoming increasingly vulnerable to unauthorized access, use, disclosure, disruption, modification, or destruction.

These threats can have a significant impact on individuals, organizations, and societies. For individuals, data breaches can lead to identity theft, financial loss, and emotional distress. For organizations, data breaches can lead to financial losses, reputational damage, and regulatory fines. For societies, data breaches can lead to the erosion of trust in institutions and the spread of misinformation.

A multidisciplinary approach is needed to address the challenges of data security in the digital age. This approach should draw on the expertise of computer scientists, engineers, mathematicians, lawyers, and social scientists.The research on data security is a rapidly evolving field. As new technologies and threats emerge, it is essential to continue to invest in research in this area. By doing so, we can help to ensure that our data is secure in the digital age.The future of data security in the digital age is uncertain. However, by working together, the different disciplines can develop effective solutions to the challenges of data security.

The paper will focus on the different types of data security threats that exist in the digital age. It will also explore different multidisciplinary approaches that can be used to address these threats. The paper will conclude by discussing the future of data security in the digital age.

Keywords: Data Security, Digital Age, Malware, Phishing, Data Breaches.

"IMPACT OF MICROFINANCE ON WOMEN EMPOWERMENT IN INDIA: A COMPREHENSIVE ANALYSIS"

Ravi Kant Maurya

Assistant Professor,Amity Business,
School,Amity University Uttar Pradesh

This research paper delves into the intricate relationship between microfinance and women's empowerment in the context of India. With a focus on elucidating the multifaceted impact of microfinance interventions, this study aims to provide a nuanced understanding of how access to financial services can catalyse empowerment processes among women in India.To achieve the research objectives research papers of reputed journal with high citation and some government reports were considered. The findings of this study suggest a complex relationship between microfinance and women's empowerment in the Indian context. While access to microloans has undeniably contributed to increased financial inclusion and decision-making agency among women, the impact on other dimensions of empowerment such as socio-political participation and intra-household dynamics is more nuanced. Economic empowerment emerged as a pivotal factor in initiating a positive cycle of change, whereby increased income generation leads to enhanced bargaining power and greater involvement in household and community matters. However, challenges such as over-indebtedness and limited control over loan utilization were also identified as potential drawbacks.The research underscores the need for a holistic approach to microfinance interventions that takes into consideration not only financial access but also education, skill development, and capacity-building. Microfinance institutions should collaborate with grassroots organizations to provide comprehensive empowerment-oriented training, focusing on financial literacy, entrepreneurship, and gender awareness. Policymakers can leverage these findings to design targeted policies that foster an enabling environment for women's holistic empowerment, including regulatory frameworks that ensure responsible lending practices and borrower protection.

Keywords: Microfinance, women empowerment, economic empowerment, India.

"DIGITAL PAYMENTS ON E-COMMERCE PLATFORMS: A STUDY OF DECENTRALIZED TRUST AND ITS IMPACT"

Ravi Kumar[1] Dr. Tanuj Mathur[2]

[1]ResearchScholar, AmityBusinessSchool,AmityUniversity Lucknow, Uttar Pradesh

[2] Assistant Professor, AmityBusinessSchool,Amity University Lucknow Uttar Pradesh

The purpose of this research paper is to comprehensively examine the integration of digital payment methods into e-commerce platforms and to evaluate its potential to address key challenges while transforming transactional processes. The surge of e-commerce has triggered a profound change in consumer transactions, with digital payment methods emerging as a critical driving force. This analysis explores the evolution, impacts, challenges, and future prospects of digital payments in the realm of e-commerce.Tracing the historical trajectory, digital payment systems have progressed from rudimentary online transactions to a diverse array of methods. Credit/debit cards, mobile wallets, peer-to-peer transfers, cryptocurrency, and buy now, pay later solutions have gained prominence. These methods offer unparalleled convenience and efficiency, redefining the shopping experience. Digital payments have revolutionized e-commerce,

extending market reach and heightening customer convenience. Their role in bolstering financial inclusion and empowering small businesses in emerging economies is evident. Nonetheless, concerns regarding data security and privacy persist, necessitating robust cybersecurity measures and user awareness.Despite benefits, challenges loom, including payment fraud, interoperability issues, and intricate regulations. Addressing these concerns is essential for sustained growth. The paper highlights the role of regulatory frameworks in ensuring the secure functioning of digital payment systems.Looking ahead, technological advancements like blockchain, biometrics, and artificial intelligence are poised to reshape digital payments. The potential impact of Central Bank Digital Currencies (CBDCs) is also discussed, hinting at further transformation.In sum, digital payments have reconfigured e-commerce, enhancing accessibility and innovation. Yet, realizing their full potential hinges on addressing challenges and embracing technological progress. This analysis provides a comprehensive understanding of digital payments in e-commerce, serving as a valuable resource for stakeholders across academia, industry, and policymaking.However, the findings also indicate that challenges such as scalability bottlenecks and regulatory uncertainties must be addressed to fully unlock the technology's potential. This research paper offers a holistic understanding of the potential and challenges associated with integrating digital payment methods into e-commerce platforms. By elucidating the advantages, drawbacks, and implications of this paradigm shift, the study contributes to the academic, business, and policymaking communities, guiding them in preparation of more secure, efficient, and trustworthy e-commerce transactions.

Keywords: Online payments, E-commerce, Trust, Technology

EMPLOYEE DATA MANAGEMENT AND ITS RELEVANCE IN THE CURRENT SCENARIO

Dr Richa Raghuvanshi

Asst Professor, Amity business School,Amity university Lucknow

Employee is one of the most important assets for any organization, Employee data management can be thought-provoking as well as very challenging, but it’s especially essential in today’s data-driven company culture. The fact you get several significant benefits further sweetens the deal. for Employee data management involves collecting, storing, and maintaining critical information concerning your organization’s employees.Why? Employee data can be essential for legal purposes and, therefore, must be continued for long periods. If you don’t want to spend too much time and effort doing this, you need a master plan for gathering, uniting, and retaining all that data to comply with legal regulations.

Database management are procedures that ensure proper application performance, avoid compliance risk and protect valuable business data. Employee data management makes your operations more efficient. You know what's going on with your employees, what needs to be updated, and which HR processes need optimization to eliminate bottlenecks and ensure smooth working.Managing employee data also helps you spot trends related to your workforce, like attrition, technological upgradation, training and other areas which may affect the overall organization and it will affect the growth as well.

Keywords: Human resource, data, trends, employee and organization.

BAYESIAN ESTIMATION OF INVERTED EXPONENTIATED PARETO DISTRIBUTION FOR FAILURE TERMS OF AIRCRAFTS WINDSHIELD RECORD DATA USING MARKOV CHAIN MONTE CARLO TECHNIQUES

Sabhiya Singh[a]* and Rajeev Pandey[b]
[a]AssistantProfessor ,Shri Jai NarainMisra Post Graduate College, Lucknow, India
[b]Professor& Dean Research ,Department of Statistics, University of Lucknow, Lucknow, India

The present paper is devoted to obtain the Bayes estimators of the unknown parameters of the Inverted Exponentiated Pareto Distribution under the assumptions of gamma priors on parameters are considered. The Bayes estimators cannot be obtained in explicit forms. So we propose Markov Chain Monte Carlo (MCMC) techniques to generate samples from the posterior distributions and in turn computing the Bayes estimators under different loss functions. Point estimation based on maximum likelihood is also proposed. The approximate Bayes estimators obtained under the assumptions of less-informative are compared with the maximum likelihood estimators using Monte Carlo simulations. One real data set has been analyzed for illustrative purposes.

Keywords: Inverted Exponentiated Pareto Distribution,Record Values, Bayesian Estimation, Simulation and MCMC Techniques

PERFORMANCE EVALUATION OF VEHICULAR COMMUNICATION OVER DSRC AD HOC NETWORKS

Sachin Kumar[1], Pragya[2]
[1]Amity University Uttar Pradesh, Lucknow Campus,[2]MVD College, Lucknow
skumar3@lko.amity.edu,dr.pragya2011@gmail.com

Abstract -Vehicular communication for intelligent transport system (ITS) employs dedicated short-range communications (DSRC) technique as the key enabling technologies for efficient

and fail-safe communication. Wireless access in vehicular environments (WAVE) is significantly different from the Wi-Fi and cellular wireless networking environments. The specifications defined by IEEE802.11P and IEEE1609 represent the most mature set of standards for DSRC/WAVE networks. study presents a delay-critical safety applications over vehicular ad hoc networks based on the emerging dedicated short-range communications (DSRC) standard. Traffic accidents and traffic jam remain a major social issue. The emergent IEEE 802.11p-based Dedicated ShortRange Communication standard – one of the IEEE 802.11 standards customized for highly mobile, severe fadingvehicular environments – paves a new direction for creating cooperative Vehicle Safety Communications (VSC)systems. Work quantifies the bit error rate, throughput and latency associated with vehicle collision avoidance applications running on top of mobile ad hoc networks employing the physical and MAC layers of DSRC. The primary challenge in the work proposed is to develop scalable, robust, low-latency and highthroughput technologies for safety applications that will significantly reduce collisions and save lives and property loss.

Keywords: WAVE, DSRC, IEEE802.11P, IEEE1609, VANET, OFDM, QoS, scalability, latency, throughput.

INTEGRATING DATA SCIENCE WITH POLITICAL SCIENCE: IMPROVING GOVERNANCE, AND PUBLIC SERVICE DELIVERY

Dr Sadaf, Amity Institute of Liberal Arts

Data science in simple terms is an interdisciplinary field that deals with processes and systems extracting insights and knowledge from large datasets. This is booming as an emerging academic field, and thus as data volumes grow, data science importance in present society becomes more relevant and undeniable. It finds applications in almost every sphere and across domains. Integrating data science with political science finds ample application in, public policy making and government structures. It helps in extracting useful information from large volumes of data to improve and transform governments decision making, public service delivery and provides the insights to make data-driven decisions. With the help of data science, the government can harness the data to address implementation gaps, detect overlaps and target the beneficiaries and feed into smart policy by making use of predictive casual analytics and machine learning.Data science can help governments understand more about the best suited policies on education, to eradicate poverty, to eliminate and prevent diseases and improve public transport, reduce congestion, and air pollution. Furthermore, it also helps in analyzing political phenomenon and behavior in politics.

However, data science adoption can do more good than harm if used in ways that do not cause harm or undermine public trust.

FINANCIAL LITERACY AS A TOOL OF WOMEN EMPOWERMENT IN EMERGING MARKET ECONOMIES

Author : Dr Sana Moid

Assistant Professor, Amity Business School, Amity University Lucknow

Financial literacy for women is an important aspect of their independence, financial and otherwise.Financial literacy empowers people, especially women, to make independent decisions.Women empowerment is a radical approach concerned with transforming power relations in favor of female gender and considered essential for global progress. The present study highlights the importance of Financial Literacy for women as a tool of their empowerment in the context of emerging market economies.

The findings revealed that, the financial literacy has significant impact on women's economic empowerment. However, when it was considered under separate dimensions, financial wellbeing and control over time allocation have significant impact on financial literacy amongst women. It is concluded that financial literacy can be considered as a significant determinant of women economic empowerment in Indian context as well. Finally, the researcher provides some suggestions for government policy decision makers to develop financial literacy level for enhancing women's economic empowerment in India.

Keywords: Financial Literacy, Women Empowerment, Women Economic Empowerment, Emerging Market Economies

DIGITAL BANKING IN INDIA: TRENDS, OPPORTUNITIES, AND CHALLENGES

Dr. Sanober Khan
Associate Professor,Department of Management and Social Sciences
Head of Academic Quality Assurance,Amity University, Tashkent.Uzbekistan

The predominant channel for providing banking services in the country in the recent years has been Digital Banking. By enabling clients to carry out their daily financial activities at their convenience, digital banking has opened the door to a new range of banking services. India's digital banking systems are expanding quickly as a result of the widespread use of mobile phones

and the internet. Understanding digital customer behaviour, preferences, choices, needs, and goals among other factors, is the first step in any successful digital transformation.

In the past few decades, the banking industry has gone through three major clear-cut stages of digital change. With an emphasis on increasing customer convenience, the first saw the development of Automated Teller Machines (ATMs), call centres, and telephone banking, and the banking became transactional and technology centric. The next phase introduced personalised banking services and was influenced by a variety of SMAC (Social, Mobile, Analytics and Cloud) technologies. The third stage was driven by more recent technologies, like Artificial Intelligence(AI), Robotic Process, Automation, Blockchain, Application Programming Interface (API) Banking, and Internet of Things(IoT), to offer far deeper degrees of personalisation and improved user experience. These transformations lead to a substantial shift from a product centric to a customer centric perspective. Under this background, this paper examines the digital banking in India, its status, trends, opportunities, and challenges.

Keywords: Digital Banking Units, Digital transformation, Payment systems

USE OF ICT TOOLS IN TEACHING SOCIAL SCIENCES.

Dr. Satendra Kumar Mishra

Coordinator, AILA, AUUP Lucknow Campus

Today, every faculty takes aid of ICT for meeting the current challenges in the world. They are also trying to develop their own field and taking effort to reach towards last member of the society. Social Science is also achieving its goal through the application of Information and Communication Technology. The Modern trends in Social sciences are not effective without use of ICT.

Social Science is a discipline which deals the problems of the society. It studies the humanbehaviour related to its entire social, economic, political and psychological field etc. It tries to find out the problems, trace it and through proper investigation and observation gives the solution. Now days, globalization makes changes in human life. It creates so many challenges in front of society. It creates competition in every sector of the society. In all these factors the structure of human life has been affected. Now we have to give such social science knowledge to college students who face the problems in their life. There is an absolute need for the application of ICT. This should be properly used by the teachers as well as assimilated by learners.

ENHANCING UNDERSTANDING AND COMMUNICATION THROUGH DATA VISUALIZATION

Dr. Shahnaz Fatima
Assistant Professor, Amity University,Lucknow, Sfatima1@lko.amity.edu

Data visualization has emerged as a powerful tool in our data-driven world, serving as a bridge between complex datasets and human comprehension. Data visualization is not merely a tool for displaying data but a means to enhance understanding, foster effective communication, and drive informed decision-making in an increasingly data-rich world. This paper explores the significance, methods, and impact of data visualization in contemporary contexts across various fields. Drawing from a comprehensive review of the existing literature, we will explore the evolution of data visualization techniques and their growing importance in aiding decision-making processes.

This paper describes various applications of data visualization, ranging from business analytics to scientific discovery and healthcare management.

TAIL RISK AND MACHINE LEARNING

Dr. Shweta Bajpai, Assistant Professor
Amity Business School, Amity University Lucknow

Estimation of tail risk is the key point in identifying major risk factors in the capital market. Since tail risk is an important factor in explaining the cross section of stocks' returns. In this study, we have analyzed the impact of downside risk in the Indian capital markets. We have considered all those stocks which are listed on NSE 500 for a period of 10 years (January 2012 to December 2022). In this study, we use the expected shortfall to construct a measure of downside risk. With the help of this expected shortfall, the systematic tail risk of the stocks is calculated. We have applied neural networks and few more algorithms to analyze the models.The results show that stocks having higher tail beta generate higher returns as downside risk premium is attached to it. However, stocks with lower downside risk generate lower returns for the same reasons.

USE OF DATA ANALYTICS IN HOSPITALS

Amrish Chandra and Alpana Srivastava
Research Scholar, Amity Business School- AUUP-Lucknow
Professor,Amity Business School- AUUP-Lucknow

An organization is not established itself. Its development and growth are determined by the decisions driven by using a vast variety of structured and unstructured data. Medical data

comprises medical records of patients like examination reports, follow-up reports &records of hospital base, their inventories & and manpower. It utilized to enhance their potential(Big data in healthcare: management, analysis and future prospects)

This study assesses the use of data analytics to find the efficiency of the hospitals in the health care industry. The methodology used here is descriptive.

Hospitals use data analytics to identify major risk-prone diseases, to find preventive measures. It makes the diagnosis process easy.

Administrative and managerial advantages are possible only due to data analytics. Patient waiting ratio is reduced due to better maintenance of HER (electronic health records). It makes healthcare sector more efficient hence reducing cost. Clinical procedures have become patient friendly.

Application of health data analytics is seen in curing cancer , in delivering telehealth services.Data analytics advantages are not flawless. Data integration is a big challenge. Different platforms have different structures for data collection, process, and storage. Data privacy is also a hurdle in data analytics.

IMPACT OF RELATIONAL EMBEDDEDNESS ON JOB PERFORMANCE- A COMPREHENSIVE STUDY

Ms. Vishakha Gupta and Dr. Archana Sharma
Research Scholar, Amity University, Uttar Pradesh.
Associate Professor, Amity University, Uttar Pradesh.

Purpose-Present day workplace is marked by interconnected workplace dynamism. This has resulted in shifting the organizational landscape towards collaborative and interdependent working, thereby giving the impetus to social relationships in the organizational settings. Relational embeddedness can be defined as the extent of closeness and connections individuals share within the professional network. Leveraging insights from the realms of organizational behaviour literature and social network theory, this research aims to delve into the effects of robust and positive relationships among employees on their performance metrics. In this study, we explore how relational embeddedness plays a pivotal role in shaping employee job performance within the context of organizations.

Methodology-The study utilizes a comprehensive review and critical analysis of various research papers concerning the interplay between relational embeddedness and job performance.

Findings-In conclusion, the findings emphasize the significant role of relational embeddedness in enhancing job performance, ultimately contributing to the long-term success of both employees and organizations.

Practical Implications- These insights will benefit individuals and organizations by helping them harness the positive aspects of social networks and address potential challenges that may arise in highly embedded network environments.

Keywords- Relational Embeddedness, Job Performance, Organizational Performance

MASTERFUL STRATEGIES FOR CRAFTING EXCEPTIONAL DASHBOARDS: BEST DESIGN PRACTICES

Dr. Meenakshi Srivastava
Assistant Professor, Amity Institute of Information Technology Amity University Lucknow

We engage with charts constantly in our daily lives, whether it's through reading the latest news, participating in meetings, analyzing sales figures, predicting future trends, or establishing goals. Dashboards commonly incorporate charts as visual representations of data. An effectively crafted dashboard serves as a potent starting point for discussions grounded in data. With access to the identical set of information, a business organisation can expedite decision-making by relying on a unified and accurate source of information. Designing an effective Dashboard involves thoughtful planning, informed design and emphasized user testing. Different types of charts, such as bar charts, line graphs, pie charts, and more, can be used depending on the nature of the data and the insights to be highlighted. In the present manuscript a detailed discussion on different types of chart types and the various criteria to be considered while using them in a Dashboard has been done.

Keywords: Dashboard, Charts, Graphs, MS Excel, Tableau.

LEVERAGING AI FOR PRECISE CONSUMER TARGETING THROUGH DIGITAL COUPONS: A DESCRIPTIVE ANALYSIS

Neha Pandey & Dr. Nimish Gupta
Amity Business School, Amity University, Lucknow

This descriptive research study explores the innovative domain of consumer targeting, which is facilitated by artificial intelligence (AI) through the distribution of digital coupons. The study utilizes secondary data to provide insights into the transformative impact of AI-driven strategies

on the efficacy of coupon campaigns. Specifically, the study systematically examines the convergence of AI and digital coupon distribution in the context of consumer behavior analysis. The advanced methodologies employed to decode consumer preferences, purchase history, and online interactions are highlighted. The analysis emphasizes how AI algorithms process vast volumes of data, enabling businesses to tailor digital coupon offers with unparalleled precision. A comprehensive collection of secondary data sources, including industry reports, scholarly articles, and case studies, is drawn upon to elucidate how AI enhances customer segmentation, personalization, and predictive analytics. The study also sheds light on the resultant benefits, such as increased conversion rates, improved customer engagement, and enhanced brand loyalty. The findings underscore the paramount significance of AI-driven strategies in optimizing marketing efforts, ultimately fostering more efficient and effective customer-brand interactions.

Keywords: Artificial Intelligence, Digital coupons, Marketing, Consumer targeting

USE OF BLOCK CHAIN IN CARBON TRADING FOR SUSTAINABLE DEVELOPMENT

ShreyaNirmal

Research Scholar, Amity Business School, Lucknow

Climate change has become a new threat globally which need to be addressed in order to reduce the future calamities . The flexible way to reduce the emissions of greenhouse gases is through the kryoto protocol established in 1997 . Future reductions in environmental pollution and carbon emissions on Earth should be made possible using carbon credits. Beginning in 2021, the market for carbon credits will become a serious problem, and these credits will be used in systems that allow for individual trading. However, a comparable exchange of carbon credits is required in order for these carbon credits to be exchanged between people. Measurement of the selling of carbon credits also requires policies, tactics, and technological advancements. This study uses blockchain technology to calculate carbon emission rights in order to increase the trustworthiness of transactions. Block Chain technology provides transparency in transaction, Immutability: transaction done cannot be changed once recorded and work on decentralized system. One of the 17 goals of the UN-SDGs (United Nations Sustainable Development Goals) uses blockchain for verifying carbon emission rights. Blockchain technology will help in building a carbon credit atmosphere which will guarantee us the security, transparency and easy access to standard carbon markets.

COMPARING THE EFFECTS OF SOCIO-DEMOGRAPHIC FACTORS ON USAGE BEHAVIOR OF GENERATION Y AND Z OVER-THE-TOP (OTT) PLATFORM USERS

Dr Tanuj Mathur,

Assistant Professor, Amity Business School, Amity University Uttar Pradesh,

The rapid proliferation of Over-The-Top (OTT) platforms has reshaped the way individuals consume content, presenting a unique opportunity to examine the influence of socio-demographic factors on usage behavior among Generation Y and Generation Z users. This comparative study aims to delve into the nuanced effects of these factors on the preferences, patterns, and engagement levels of these two distinct generational cohorts. Drawing on a comprehensive dataset collected from diverse sources, this research employs a mixed-methods approach to analyze the multifaceted relationships between socio-demographic variables and OTT usage behavior. By comparing the effects of these variables across the two generations, this research seeks to uncover potential generational nuances in usage behavior and preferences. The implications of this research are far-reaching, offering insights that can inform content creators, marketers, and OTT platform providers on tailoring their offerings to resonate with the unique characteristics of each generation. Additionally, a deeper understanding of the interplay between socio-demographic factors and OTT usage behavior can contribute to more effective audience segmentation and targeted marketing strategies. The findings of this research not only advance scholarly discourse but also provide practical insights for industry stakeholders navigating the dynamic landscape of digital content consumption.

Keywords: Socio-demographic factors, OTT platform, Usage pattern, Engagement levels

THE DISINGENUOUS NATURE OF CORPORATE SUSTAINABILITY REPORTING

Vishal Verma&Prof. (Dr.) Alpana Srivastava
Research Scholar, Amity Business School- AUUP-Lucknow
Professor,Amity Business School- AUUP-Lucknow

Abstract: Corporate sustainability reporting has become increasingly common in recent years, as businesses seek to demonstrate their commitment to environmental and social responsibility. However, there is growing concern that this reporting is often misleading and does not accurately reflect the true impact of corporate activity.

This paper argues that corporate sustainability reporting can be used to obfuscate the real environmental and social impacts of companies. By using vague and ambiguous language, companies can make it difficult for investors and other stakeholders to understand their true sustainability performance. This can lead to a false sense of security about the state of the environment and the risks associated with investing in certain companies.

The paper calls for a more rigorous approach to corporate sustainability reporting, one that is based on clear and transparent metrics. It also argues that there is a need for greater public debate about the meaning of sustainability and the role of business in achieving it.

Keywords: Sustainability reporting, Environmental, social, and governance (ESG), Non-financial reporting, Greenwashing and Sustainability disclosure index.

THE USE AND SIGNIFICANCE OF MACHINE LEARNING IN HEALTHCARE: A COMPREHENSIVE OVERVIEW

Anuradha Misra

Assistant Professor, Department of Computer Science & Engineering, Amity School of Engineering & Technology, Amity University, Uttar Pradesh, Lucknow Campus,

The integration of machine learning (ML) into healthcare systems has emerged as a transformative force, revolutionizing the landscape of medical diagnostics, treatment strategies, and overall patient care. This abstract provides a comprehensive overview of the use and significance of machine learning in healthcare. Machine learning algorithms, fueled by vast datasets and powerful computing resources, excel in extracting meaningful patterns and insights from complex healthcare data. This capability has proven invaluable in disease prediction, early detection, and personalized treatment plans. ML applications, ranging from predictive analytics to image recognition, have demonstrated exceptional accuracy and efficiency in diagnosing medical conditions, thereby facilitating timely interventions and improving patient outcomes. In addition to diagnostic prowers, machine learning contributes significantly to the optimization of healthcare operations. In conclusion, the use of machine learning in healthcare holds immense promise, revolutionizing diagnostics, treatment strategies, and health management practices. As advancements continue, a collaborative effort among healthcare professionals, technologists, and policymakers is essential to harness the full potential of machine learning while addressing ethical and societal considerations.

Keywords: machine learning, artificial intelligence

A STUDY OF TOOLS USED FOR DATA MANAGEMENT

Ms. Deepika TIwari

Assistant Professor, United Institute of Management, Prayagraj

Big Data is the term that describes the large amount of data, which can be structured and unstructured, that affects business. Big Data requires specialized tools for their treatment in order

to generate important results that, in smaller volumes, would hardly be achieved. The focus should not be exclusively in dealing with high quantity of data, but on the possibility that these data offer in the intention of creating information and knowledge that can make companies and public entities more competitive, which will let them to offer better services for consumers and citizens.

Big Data is one of the most predominant field of knowledge and research that has generated high repercussion in the process of digital transformation of organizations in recent years. The Big Data's main goal is to improve work processes through analysis and interpretation of large amounts of data. Our study performs a systematic review on Big Data field adopting a mind map approach, which allows us to easily and visually identify its main elements and dependencies. The findings identified and mapped main branches of benefits, challenges and tools.

Key words: Big Data, data management, data analysis, massive data, business intelligence, cloud computing, Map reduce

OPTIMIZATION OF WIRELESS NETWORK USING ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING FOR COMMUNICATIONS

Kamlesh Kumar Singh
Department of ECE, ASET, Amity University Uttar Pradesh Lucknow Campus

Optimizing wireless networks using artificial intelligence (AI) and machine learning (ML) techniques is a promising approach to enhance the performance, efficiency, and reliability of communication systems. In this research paper we have focused on how AI and ML can be applied to various aspects of wireless network optimization, including network planning, resource allocation, interference management, and quality of service (QoS) improvement. AI algorithms can analyse geographical data, user density, and terrain information to optimize the placement of base stations and antennas for maximum coverage and capacity. It was found that ML can help in dynamic spectrum allocation, allowing networks to adapt to changing interference and traffic conditions by assigning available frequencies more efficiently. This research article focuses how implementing AI and ML in wireless network optimization requires access to data, powerful computational resources, and ongoing monitoring and fine-tuning. Moreover, it's essential to consider privacy and security concerns when handling sensitive network data. As technology continues to advance, AI and ML will play an increasingly critical role in optimizing wireless communication systems.

Keywords: Artificial intelligence, Machine Learning, Optimization, Computational etc.

DETECTION OF FACIAL EXPRESSION USING AI

Deependra Pandey
Dept of ECE, ASET, AUUP Lucknow Campus

Facial expressions are a fundamental component of human communication. In recent years, artificial intelligence (AI) has emerged as a powerful tool for the analysis of facial expressions, by enabling automated and accurate recognition of emotions and facial gestures. This paper deals with the evolution of facial expression detection techniques, such as feature-based methods and machine learning classifiers. Subsequently, It also explores the advancements facilitated by deep learning, specifically convolutional neural networks (CNNs) and recurrent neural networks (RNNs), for improved feature extraction and recognition of facial patterns. As we are all aware facial expressions change region-wise, gender-wise, and age-wise and many more aspects are to be considered for facial expression. The challenges associated with AI-based facial expression detection are also addressed.

This paper offers a comprehensive overview of the state of the art in AI-based facial expression analysis in diverse sectors, from mental health monitoring to human-computer interaction.

Keywords: Artificial Intelligence (AI), convolutional neural networks (CNNs), recurrent neural networks (RNNs)

SMART FARMING WITH INTEGRATION OF IOT AND AI

Ansh Samuel Rao, Anuradha Misra,

Department of Computer Science,Amity School of Engineering and Technology,Amity University Lucknow Campus,ansh.rao1@s.amity.eduamisra@amity.edu

Smart Agriculture, a fusion of Internet of Things (IoT) and Artificial Intelligence (AI), represents a transformative approach to modern farming practices. This integration empowers farmers with real-time data, advanced analytics, and intelligent decision-making capabilities. The document explores the profound impact of Smart Agriculture on traditional farming, emphasizing its potential to increase productivity, reduce environmental impact, and contribute to global food security.The document begins by defining Smart Agriculture and highlighting its role in the fourth industrial revolution. It underscores the significance of IoT sensors and AI algorithms in revolutionizing farming practices, enabling data-driven decisions, resource optimization, and improved sustainability. Smart Agriculture is seen as a key player in shaping the future of agriculture by fostering innovation, knowledge sharing, and collaboration among farmers, agronomists, and researchers.

The integration of IoT into agriculture is explored through various use cases, including climate monitoring, greenhouse automation, crop management, cattle monitoring, precision agriculture, agricultural drones, and predictive analytics. These applications offer insights into how IoT technology enhances data collection, monitoring, and automation, ultimately leading to cost reduction, environmental conservation, and enhanced crop quality.The document then delves into the role of AI in Smart Agriculture. It discusses how AI-driven solutions enable farmers to work more efficiently, predict optimal planting times, identify diseases and pests, and reduce the use of chemicals through smart spraying. Predictive analytics, powered by AI, aids in crop yield forecasts, price predictions, and decision-making, ensuring farmers can respond effectively to market dynamics.The integration of IoT and AI is examined in detail, emphasizing its synergies and benefits. The document emphasizes the importance of data security and privacy, addressing adoption challenges, scalability, interoperability, standardization, and the need for continuous development. Smart Agriculture is envisioned as a sustainable and responsible practice that can meet the growing global food demand while minimizing its environmental footprint.