

## INSPIRING MINDS, TRANSFORMING LIVES

power of informed decisions drives business success.

Dive into the latest edition to explore the dynamic world of data and analytics, discover industry trends, explore educational opportunities, and learn about our vision to mold future-ready leaders. Stay informed, stay inspired, with Montage Newsletter.



#### MBA IN BUSINESS INTELLIGENCE

Forge strategic leaders proficient in data analytics for informed decision-making.

#### P.G. DIPLOMA IN DATA ANALYSIS

Master the art of extracting insights from data to drive business decisions.







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### MONTAGE NEWSLETTER OF BKBI

#### Welcome to the Department of Business Intelligence's Newsletter:

Montage, where we share the latest updates and insights from our vibrant community. As we delve into the world of data analytics, business strategy, and decision-making, we invite you to explore the stories and achievements that define our department.

Gujarat University has been a cornerstone of higher education since its establishment in 1949. With a rich history of academic excellence and a commitment to innovation, the university has nurtured generations of scholars and professionals who have made significant contributions to society.

The B.K. School of Professional and Management Studies, a proud constituent of Gujarat University, has been a trailblazer in management education since 1965. Our institute has a legacy of producing visionary leaders and entrepreneurs who have excelled in the world of business.

The Department of Business Intelligence at B.K. School of Professional and Management Studies is a dynamic and forward-thinking department that explores the intersection of data analytics, business strategy, and decision-making. Our faculty and students are at the forefront of research and innovation, driving positive change in the business world.

In this newsletter, we highlight some of the exciting projects, and initiatives that our department has been involved in.

We hope that these stories inspire you and give you a glimpse into the impactful work being done by our community.

## FROM THE DESK OF HON. VICE CHANCELLOR



The resurgence of the second wave of the Coronavirus has once again challenged us, revealing our resilience and determination. While we had hoped it was the end, we are faced with another hurdle to overcome. Just as a runner pushes their limits and finds inspiration to excel in challenging times, I believe Gujarat University can rise to the occasion.

During this pandemic, I urge all our faculty, staff, and students to stay organized and engaged. The world needs our dynamism, and together, we can achieve even greater heights for ourselves, our families, our university, and our country.

I also extend my heartfelt congratulations to the Department of Business Intelligence on the successful release of the second edition of Montage. My best wishes to all the readers and the Editorial team for their dedication and hard work. Here's to many more successful editions in the future.

Best wishes for your health and safety.

Prof. (Dr.) Himanshu Pandya Vice Chancellor, Gujarat University

# FROM THE DESK OF DIRECTOR



It gives me great pleasure to present to you the second edition of Montage, the official newsletter of the Department of Business Intelligence at BKSPMS. This edition reflects our department's continued growth and success, showcasing the outstanding achievements of our students and faculty.

In this edition, you will find a range of articles and updates highlighting our department's activities over the past six months. From academic achievements to industry collaborations, this edition celebrates the dedication and hard work of our college community.

I would like to extend my heartfelt thanks to the editorial team for their dedication and hard work in putting together this newsletter. Their commitment to excellence is truly commendable, and I am grateful for their efforts.

As we look ahead to the future, I am confident that our department will continue to thrive, thanks to the passion and dedication of our students, faculty, and staff.

Thank you all for your continued support, and I look forward to celebrating many more achievements together.

Best Wishes,

Prof. (Dr.) Prateek Kanchan
Director and Professor
B.K School of Professional and Management Studies,
Gujarat University.

# FROM THE DESK OF CHIEF EDITOR & HEAD



It is with great pleasure that I introduce the second edition of Montage, our department's newsletter. Over the past six months, our department has continued to flourish, achieving new milestones and making significant strides in the field of business intelligence. This edition features a wide array of articles, including insightful seminars and workshop insights, captivating student features, and highlights from our departmental events.

I am incredibly proud of the dedication and hard work of our editorial team and contributors, who have worked tirelessly to bring this edition to life. Their commitment to excellence is truly commendable, and I am grateful for their efforts in making this newsletter a valuable resource for our department.

As you peruse through the pages of this edition, I hope you will gain a deeper insight into the innovative work being done within our department. I encourage you to engage with the newsletter by providing feedback and suggestions for future editions. Your input is invaluable as we strive to make Montage a publication that reflects the diverse interests and achievements of our department.

Thank you for your continued support, and I hope you enjoy reading this edition of Montage.

Regards,

Dr. Mamta Brahmbhatt
Associate Professor & Head
Department Business Intelligence,
B.K School of Professional and Management Studies,
Gujarat University.



#### What is MBA in **Business Intelligence?**

Embark on an enriching academic journey with our MBA in Business Intelligence.

This seamlessly program integrates cutting-edge analyticswith strategic acumen, empowering vou navigate the intricate landscape of modern business. Immerse yourself in the art of turning data into actionable insights emerge as a skilled navigator of the business intelligence terrain.

Join us in sculpting the future of informed decision-making, where vour expertise will be the cornerstone of success in the dynamic world of commerce.

#### **Career Opportunities**

- **Data Engineer**
- **Data Scientist**
- **Business Analyst**
- **Data Analyst**
- Business Intelligence Executive
   Customer InsightsAnalyst
- Marketing Analytics Manager
- Product Manager

- Sales Operations Manager
- Database Administrator
- Performance Analyst
- Financial Analyst
- Risk Analyst
- Supply Chain Analyst

#### Why should you pursue a career in it?

An MBA in Business Intelligence not only hones sought-after skills but also primesyou for high- demand placements.

The versatile nature of Business Intelligence expertiseensures relevance across industries, providing diverse placement opportunities. Competitive remuneration, clear career growth paths, and strategic decision-making roles enhance the appeal of this specialized MBA. Industry connections, internships, and corporate partnerships further boost your chances of securing well-compensated and fulfilling placements, making it a strategic investment for a successful career.

#### **Scope of MBA in Business Intelligence**

The MBA in Business Intelligence offers a distinctive combination of managerial acumen and datadriven insights, distinguishing graduates and opening doors to exceptional career prospects. This innovative program equips students to meet the dynamic demands of the corporate world, cultivating their abilities as proficient analysts and visionary leaders. Opting for this MBA isn't merely about enhancing skills; it's a strategic move towards a successful career, where this unparalleled fusion paves the path to achievement.



Department of Business Intelligence offers short term courses of one year Post Graduate Diploma Programmes. The target of the programmes is those persons who want to increase their employability or improve their professional skills but did not have the opportunity to do so earlier in a formal manner.

The focus of the programmes will be to impart the required knowledge and skills. These programmes will be conducted during the evening hours so that employed persons or students pursuing other programmes can also join without affecting their normal pursuits. In other words, even Post Graduate students pursuing other full time programmes can also join any of these programmes

### GLIMPSES OF TOPICS TO BE COVERED IN DIPLOMA COURSE IN DATA ANALYSIS

#### Introduction to Research Methods:-

Introduction to Research and Problem Formulation, Research Process and Research Design, Sampling Theory, Data Collection, Preparation, Analysis And Reporting

#### **Basics of statistics:-**

Sample And Population, Population Parameter And Sample Statistic, Descriptive Statistics And Inferential Statistics, Ungrouped Data And Grouped Data, Dependent And Independent Variable, Scale Of Measurement( Nominal, Ordinal, Interval And Ratio)

#### **Introducing Software Interface:-**

Data View And Variable View), Measurement Scales, How To Export Data From Excel To Software, Entering, Saving And Printing Data, Viewing A Few Cases, Merge File With Cases, Merge File With Variables, Sort Cases, Spilt File, Select Cases, How To Do Serial Number, Recode Into Same Variable, Recode Into Different Variable, Compute Command, Visual Binning, Generation Of Shell File.

#### **Descriptive Statistics:-**

Tables And Graphs for One Variable, Tables And Graphs for Two Variables, One Variable Descriptive Statistics, Two Variables Descriptive Statistics, Measures Of Central Tendency And Variability, Shape Of Distribution, Stem and Leaf Charts, Box And Whisker Plot.

#### One - Sample Hypothesis Tests, Two- Sample Hypothesis Tests (theory):-

The Logic of Hypothesis testing, A More Realistic Case: We Don't know µand Sigma, OneSample T-Test, The Logic of Hypothesis Testing, Paired vs. Independent Samples, Testing

#### One - Sample Hypothesis Tests, Two- Sample Hypothesis Tests (theory):-

Univariate, bivariate, Multivariate analysis techniques (SPSS Practical session)

#### Parametric and Nonparametric Methods:-

Introduction to Parametric and Nonparametric Methods, Mann-Whitney U test, Wilcoxon Signed Ranks Test, Kruskal- Wallis H Test, Spearman's Rank Order Correlation, Sign Test, Runs Test, One Sample Chi Square Test, Fridman One-Way Anova, Kolmogorov- Smirnov One Sample Test.

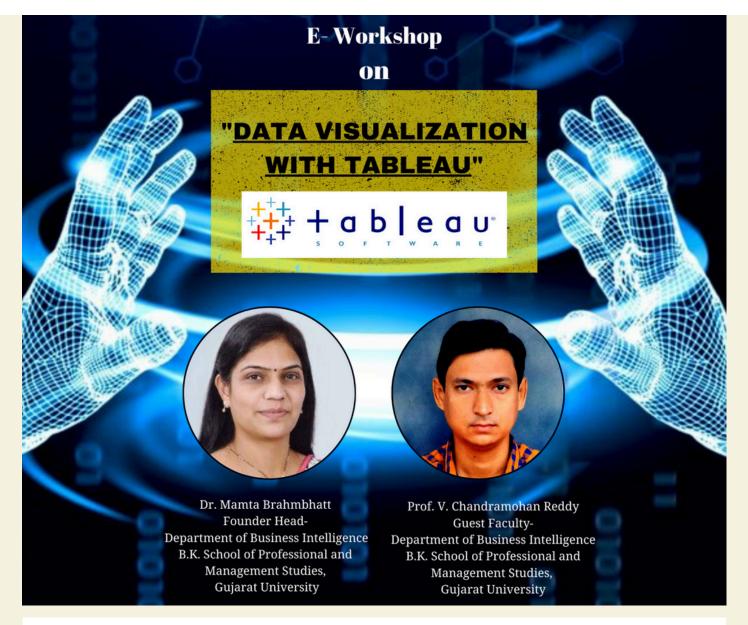
#### Factor analysis, cluster and discriminate analysis:-

Introduction to Parametric and Nonparametric Methods, Mann-Whitney U test, Wilcoxon Signed Ranks Test, Kruskal- Wallis H Test, Spearman's Rank Order Correlation, Sign Test, Runs Test, One Sample Chi Square Test, Fridman One-Way Anova, Kolmogorov- Smirnov One Sample Test.

#### **E-WORKSHOP**

#### **ON DATA VISUALIZATION WITH TABLEAU**





An e-workshop on data visualization with Tableau was conducted by the department, wherein participants engaged in a comprehensive exploration of the platform's capabilities. The workshop began with an introduction to Tableau's interface, where attendees learned to import, clean, and transform data into meaningful visual representations.

Through practical exercises, participants enhanced their skills in creating various types of charts, graphs, and dashboards. The focus extended beyond basic functionalities, delving into advanced features such as calculated fields, parameters, and trend analysis. The workshop emphasized the importance of selecting appropriate visualization types to effectively convey insights.

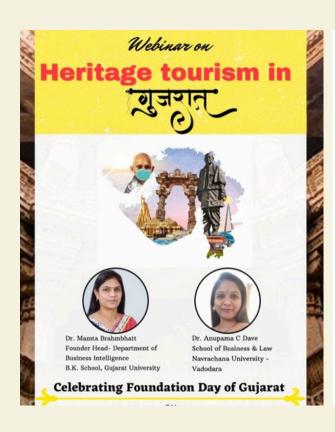
Moreover, Prof. Chandramohan explained the concepts through real-world examples and case studies, enabling participants to apply their newfound knowledge to practical scenarios. Collaborative discussions and Q&A sessions facilitated a deeper understanding of data visualization principles and best practices.

By the end of the workshop, attendees not only acquired technical proficiency in Tableau but also developed a keen understanding of how to leverage visualizations for impactful storytelling and data-driven decision-making within their respective roles.

#### WEBINAR ON

#### **HERITAGE TOURISM IN GUJARAT**





### હેરિટેજ ટુરિઝમઇન ગુજરાત પર વેબિનાર યોજાયો કોવિડને કારણે લોકો વિદેશમાં ટ્રાવેલિંગ કરવાનું ટાળી રહ્યા છે

અમદાવાદ | ગુજરાત યુનિ.ની બી.કે. સ્કૂલ ઓફ પ્રોફેશનલ એન્ડ મેનેજમેન્ટ સ્ટડીઝના ડિપાર્ટમેન્ટ ઓફ બિઝનેસ ઇન્ટેલિજન્સ દ્વારા ગુજરાત સ્થાપના દિવસ નિમિત્તે 'હેરિટેજ ટુરિઝમ ઈન ગુજરાત' પર વેબિનાર યોજાયો હતો.

સેમિનારના વક્તા તરીકે વડોદરા નવરચના યુનિવર્સિટીનાં પ્રોફેસર ડૉ. અનુપમા દવે ઉપસ્થિત રહ્યા હતા. આ વેબિનારમાં કોરોનાની મહામારી પહેલા ગુજરાત રાજ્યના પર્યટન ઉદ્યોગ અને રાજ્યનો પ્રેરણાદાયી ઇતિહાસ, સંસ્કૃતિ અને આર્કિટેક્ચર વિશે ચર્ચા કરી

હતી. જેમાં તેઓ જણાવ્યું કે, 'કોવિડ મહામારીથી સૌથી વધુ અસર ટુરિઝમ સેક્ટરને પડી છે. લોકડાઉન અને અન્ય સાવચેતીનાં પગલા જે આ મહામારી દરમિયાન લેવાયા છે તેના કારણે ઉદ્યોગને ખરાબ અસર થઈ છે. કોવિડને કારણે લોકો વિદેશ જવાનું તેમજ ડોમેસ્ટિક ટ્રાવેલિંગ કરવાનું પણ ટળી રહ્યા છે.આ વેબિનાર ના અંતમાં, કન્વીનર ડો. મમતા બ્રહ્મભટ્ટે ગુજરાત યુનિવર્સિટીના વાઇસ યાન્સલર ડો. હિમાંશુ પંક્યા અને પ્રો. વાઇસ યાન્સલર ડો. જગદીશ ભાવસારનો આભાર વ્યક્ત કર્યો હતો.

Daily news paper Divya Bhaskar has covered the news of webinar on "Heritage Tourism in Gujarat" on the occassion of Gujarat Foundation Day organised by Department of Business Intelligence, BK School of Professional and Management Studies.

COVID pandemic has not only affected the mankind but also influenced every industry and every sector. One of the sectors that has been affected the most by this pandemic is TOURISM. The lockdown and other precautionary measures that needed to be taken during this pandemic has impacted industry badly. Owing to COVID people are forced to remain in their own geographical boundaries. They cannot go abroad and domestic tourism is the only way to keep the sector going.

The webinar discussed about the Tourism industry of Gujarat state before pandemic and how the state is blessed with inspiring history, culture and architecture. It had a discussion on what is it meant by – Heritage Tourism and various places in Gujarat which promotes it. The webinar also talked about the New Heritage Tourism Policy 20-25, declared by the state of Gujarat and how it can help in putting the state on 'World Tourism Map'. The webinar helped the young minds in understanding the importance of tourism industry in promoting the wellbeing of the state and the nation.

Dr. Anupama Dave –Assistant Professor from Navrachana University (Vadodara) has addressed the audience online.

## WEBINAR ON SHORT TERM TRAINING PROGRAM (STTP) ON TABLEAU DASHBOARDS





The Story-Term Training Program on Tableau Dashboards provided an immersive learning experience for students, focusing on the art of crafting compelling narratives through data visualization. Throughout the program, students delved into the intricacies of Tableau to elevate their dashboard creation skills.

The training commenced with a basic understanding of storytelling principles, emphasizing the importance of structuring data narratives to convey insights effectively. Students then transitioned to hands-on sessions within Tableau, learning to integrate diverse data sources and design visually engaging dashboards.

The curriculum extended to advanced features such as interactivity, annotations, and custom calculations, enabling attendees to add depth and context to their visualizations. Practical exercises and real-world scenarios facilitated the application of these skills, fostering a dynamic learning environment.

Collaboration was a key aspect, with students sharing their dashboard projects and receiving constructive feedback. The program aimed not only to enhance technical proficiency but also to cultivate a strategic approach to data communication.

By the program's conclusion, students emerged with a refined skill set, capable of leveraging Tableau to create impactful dashboards that resonate with stakeholders and drive informed decision-making within their organizations.

## WEBINAR ON EXECUTIVE DEVELOPMENT PROGRAMME (EDP) ON NLP





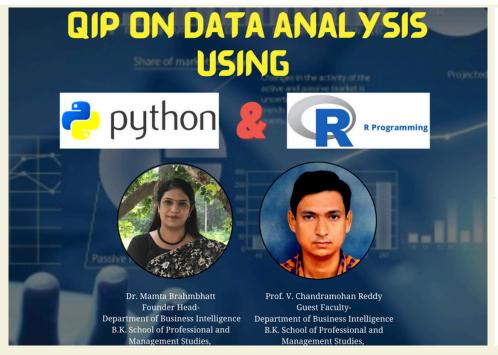
The Executive Development Programme on Natural Language Processing (NLP) was a comprehensive initiative designed to equip students with a profound understanding of NLP fundamentals and advanced techniques. Throughout the program, students explored the significance of NLP, got to learn key concepts such as tokenization and sentiment analysis, and gained hands-on experience through practical demonstrations.

The curriculum extended to learning advanced NLP techniques, including machine translation and named entity recognition, providing students with a holistic view of the transformative capabilities of NLP. Industry insights from expert Prof. V. Chandramohan shed light on how NLP is revolutionizing in various sectors, offering valuable perspectives on career opportunities in this evolving field.

The program also aimed to enhance technical proficiency but also encouraged interactive learning through a Q&A session, fostering collaborative discussions among students. At the end of the session students had a solid foundation in NLP, practical skills, and insights into the vast potential of this technology across different industries. This Executive Development Programme served as a gateway for students to navigate and excel in the dynamic field of Natural Language Processing.

## WEBINAR ON QIP ON DATA ANALYSIS USING R & PYTHON





કોરોના કાળને કારણે માહિતી વિશ્લેષણ સંબંધિત તકોમાં વેગ ગુજરાત યુનિવર્સિટી ની બી.કે. સ્કૂલ ઓફ પ્રોફેશનલ એન્ડ

ગુજરાત યુનિવર્સિટી ની બી.કે. સ્કૂલ ઓફ પ્રોફેશનલ અંન્ડ મેનેજમેન્ટ સ્ટડીઝ ના ડિપાર્ટમેન્ટ ઓફ બિઝનેસ ઇન્ટેલિજન્સ હારા હારા "Quality Improvement Program (QIP) on data analysis using R Python" વિષય ઉપર QIP યોજાયો હતો.



"R" અને "Python" ઓપન સોર્સ હોવાથી વધુ પ્રચલિત છે. માહિતી વિજ્ઞાન ક્ષેત્રે, "R' મુખ્યત્વે આંકડાકીય વિશ્લેષણ માટે પ્રખ્યાત છે, જ્યારે "Python" આ ઉપરાંત અનેક વિશેષતાઓ ધરાવે છે. વેબિનાર તમામ ક્ષેત્રના વિદ્યાર્થીઓ માટે ખુલ્લો રાખવામાં આવ્યો હતો, જેમાં અંદાજે ૮૦થી વધુ વિદ્યાર્થીઓ ઉપસ્થિત રહ્યા હતાં. માહિતી વિશ્લેષણ ક્ષેત્રે કારકિર્દી ઘડવા ઈચ્છતા વિદ્યાર્થીઓ માટે આ વેબિનાર જરૂરથી મદદરૂપ નીવડશે. વેબિનારના અંતમાં કન્વીનર ડો. મમતા બ્રહ્મભટ્ટે ગુજરાત યુનિવર્સિટીના વાઇસ ચાન્સલર ડો. હિમાંશુ પંડચા અને પ્રો વાઇસ ચાન્સલર ડો. જગદીશ ભાવસાર સર નો આભાર વ્યક્ત

Daily newspaper Divya Bhaskar has covered the news of webinar on "Webinar on QIP ON DATA ANALYSIS USING R & PYTHON" on the occasion of Gujarat Foundation Day organised by Department of Business Intelligence, BK School of Professional and Management Studies.

The QIP on Data Analysis using R & Python was organized by department, leaving students enriched with valuable insights and practical skills in the realm of data analysis. Throughout the session, students engaged in a comprehensive exploration of both R and Python, gaining proficiency in various aspects of the data analysis workflow.

The webinar commenced with an introduction to the significance of data analysis, establishing R and Python as powerful tools for data manipulation and visualization. Then students got an hands-on experience on data wrangling and cleaning, learning best practices for handling data intricacies.

Exploratory Data Analysis (EDA) and statistical analysis were pivotal components of the program, providing students with techniques to derive meaningful insights from data and conduct hypothesis testing. The introduction to machine learning concepts further expanded participants' understanding, with practical demonstrations of implementing predictive models.

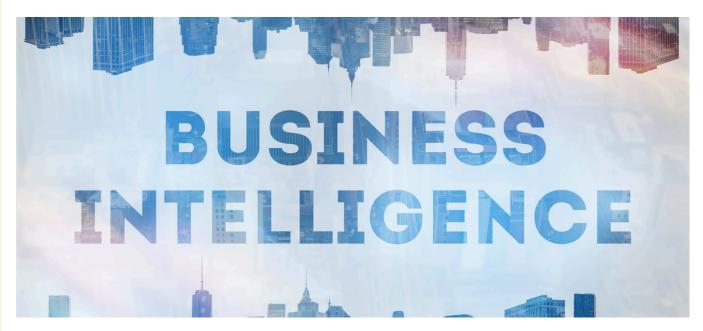
One of the webinar's key highlights was the integration of R and Python in the data analysis workflow. Participants learned strategies for seamless collaboration between these languages, enhancing their versatility in approaching complex analytical tasks.

Real-world case studies and examples throughout the session underscored the practical applications of the learned concepts, connecting theory to tangible scenarios. The interactive nature of the webinar, including Q&A sessions, fostered a collaborative learning environment, allowing students to address queries and engage in insightful discussions.

As students leave the session, they carry with them not only enhanced technical skills but also a broader perspective on how R and Python can be effectively employed in tandem for robust data analysis. This QIP has laid a solid foundation for participants to navigate the dynamic landscape of data analysis confidently.

### **ARTICLE**





The future of <u>business intelligence</u> looks extremely promising and is destined to assume a more central role in enterprises. However, to obtain the real value from BI, it is crucial to be aware of upcoming trends, understand how they can be incorporated, and have a roadmap in place to embrace technology across the business

2020 was a significant year for the business intelligence industry, and the trends of last year will continue to play out through 2021. However, the technology landscape is rapidly evolving, and the future of business intelligence is played now, with new and emerging trends to keep an eye on. In 2021, business intelligence tools and strategies will become increasingly customized. Businesses of all sizes will no longer ask if they require increased access to business intelligence analytics; instead, it will be about the best BI solution for their specific business.

P3 founder and CEO, Rob Collie says, "If the business world has learned anything from the current global environment, it is that we must have the ability to analyse real-time data to inform business decisions. Today's environment requires rapid response tools that can keep up with the pace of change and enable business leaders to respond to abruptly changing conditions. This speed is not only necessary but now expected."

"In 2021, watch for BI solutions that deliver real, tangible results in five business days. With advances in BI software platforms, this timeline is both realistic and achievable. Gone are the days of months- or years-long BI projects that often churn for months just on requirements gathering. For your next BI project, don't settle for a quick timeline that yields just a prototype or data dashboard mock-up. Demand, within five business days, real data insights that can inform business decisions and immediate action," he adds.

P3 founder and CEO, Rob Collie





#### The Future of Business Intelligence

Here's a look at some of the biggest trends likely to dominate the business intelligence and analytics space in 2021.

#### **Artificial Intelligence**

Businesses are advancing from a static, passive report of things to proactive analytics with dashboards that help them see what is happening every second and give regular alerts. Features such as Al algorithms based on advanced neural networks provide a high level of accuracy in detecting anomalies as it learns from historical patterns and trends. This will help immediately register and notify the user of any unexpected events.

Another feature that AI has to offer in BI solutions is the upscaled insights capability that automatically analyzes the dataset without needing human intervention.

There is an increasing demand for real-time online data analysis tools. The arrival of IoT is bringing an invaluable amount of data that will promote statistical analysis and management at the top of the priorities list. Tech giants use AI in various ways that will enhance the <u>machine learning</u> process, and businesses worldwide should keep an eye on this process in 2021.

#### **Increased Data Security**

Data and information security will continue to buzz the world in 2021. With the sudden surge in technological reliance, the threats in cyber security were made even more evident as criminals targeted a number of companies globally.

The increased threat has resulted in the implementation of the GDPR in the European Union and the CCPA in the United States as building blocks for data security and management. Following in these footsteps, 2021 will see businesses adopting much more stringent data security measures.

#### **Real-time Data & Analytics**

In 2020, organizations witnessed the crucial value of real-time data and accurate updates for business analytics, enabling the necessary development of strategies to respond to a situation as it arises. Upto-date data has become more critical than ever before, and since the world has changed, businesses need to adapt as well. Going into 2021, organizations and governments will use real-time data with live dashboards for quicker reactions.

#### Aaron Kalb, Co-founder and CDAO, Alation

<u>Aaron Kalb</u>, Co-founder and CDAO, Alation says, "proactive analytics phoenix" will rise from the devastation of the COVID crisis. When the pandemic turned the world economy upside down, organizations were forced to invest rapidly in business intelligence and data catalog software just to understand what the heck was going on and make basic business decisions. As we enter a new normal in 2021, they'll be able to leverage those reactive investments to do proactive business process optimization.



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