WHITE PAPER

GAINING AN EDGE

▷ **AN INTEGRATED APPROACH TO DATA SCIENCE, COMPETITIVE INTELLIGENCE AND BACKGROUND CHECKS IN BUSINESS**

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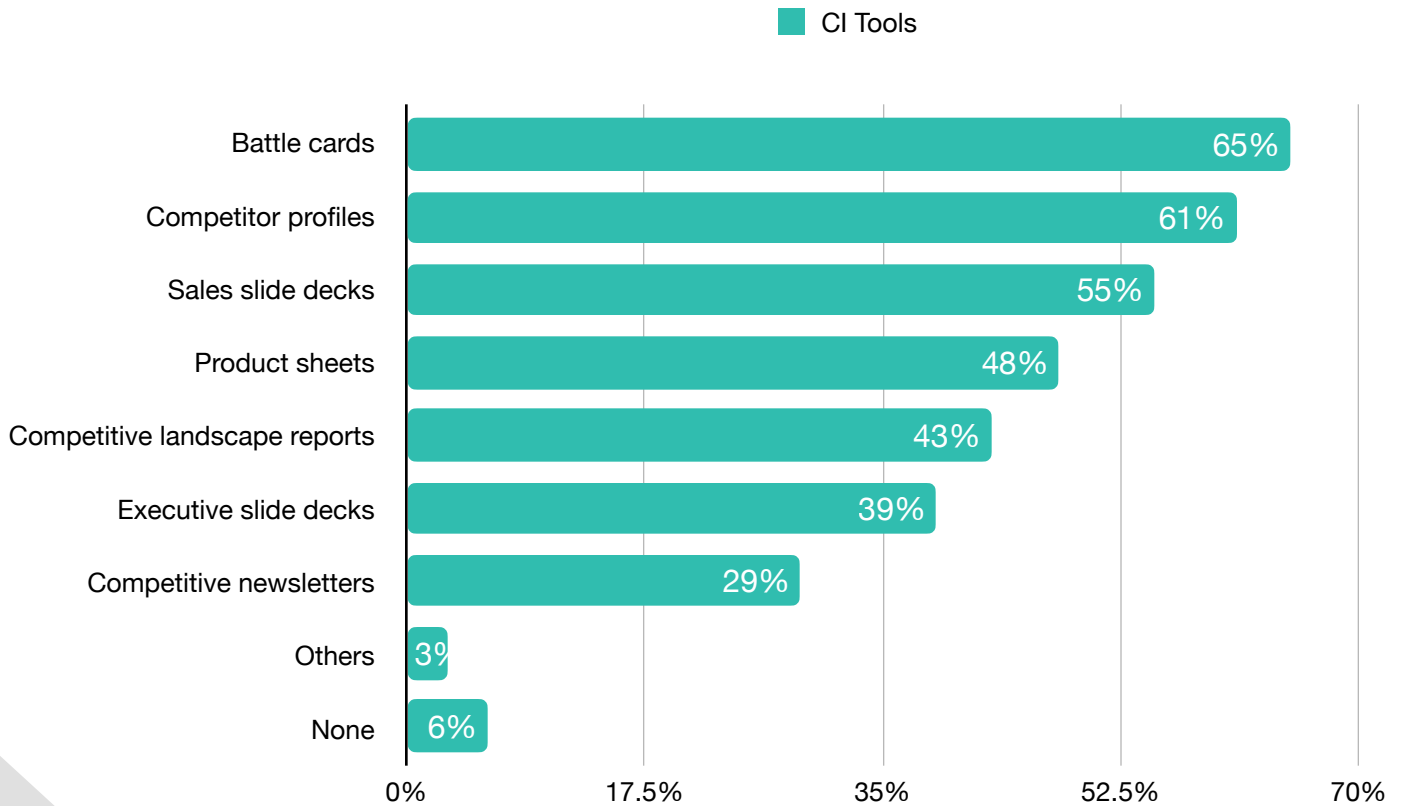
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I. Introduction

In today's complex markets, Data Science, Competitive intelligence (CI) and background checks play pivotal roles in empowering businesses to gain an edge.

According to a study conducted in 2011 by Benjamin Gilad ("Strategy without Intelligence, Intelligence without Strategy"), **90% of Fortune 500 companies use Competitive Intelligence** to gain a competitive advantage in their industry.

Studies from PwC ("A marketplace without boundaries? Responding to disruption") and Forbes ("84% Of Enterprises See Big Data Analytics Changing Their Industries' Competitive Landscapes In The Next Year") also corroborate that Competitive Intelligence, together with Data Analysis, is what allows decision makers in businesses to move **5x faster** to **conquer new markets in only three years**.

Among the deliverables that are most used to display the results of CI, according to a Crayon survey, are battle cards, competitor profiles, and sales slide decks.

CI Tools

Category	Value
Battle cards	65%
Competitor profiles	61%
Sales slide decks	55%
Product sheets	48%
Competitive landscape reports	43%
Executive slide decks	39%
Competitive newsletters	29%
Others	3%
None	6%

Source: Competitive Intelligence: A Data-Backed Overview (Video) | Crayon

Hence, while the name "Competitive Intelligence" might seem intimidating, it is very likely that you have had pieces of CI in your hands in your daily routines, used it to make business decisions, or even contributed to create some of it.

In this White Paper, we want to show why you should incorporate CI, Data Analytics, and Background Checks into your business and how you can do that.

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CI encompasses the systematic and ethical collection, analysis, and dissemination of information about competitors, customers, and market trends.

By gathering and interpreting this valuable data, businesses can make informed decisions that enhance their market position, optimize resource allocation, and develop innovative products or services.

CI enables businesses to understand their competitive landscape, identify potential threats and opportunities, and proactively adapt their strategies to stay ahead of the curve.

Background checks, on the other hand, **provide businesses with essential insights into the qualifications, experience, and integrity of individuals they consider hiring, partnering with, or investing in**.

Through background checks you can uncover potential risks associated with a person's past, such as criminal records, financial discrepancies, or ethical violations.

By conducting comprehensive background checks, businesses can safeguard their reputation, protect their assets, and foster a trustworthy and secure work environment.

Data science plays a fundamental role in both competitive intelligence (CI) and background checks, serving as the backbone for effective data gathering, analysis, and decision-making.

The integration of CI and background checks into business practices is crucial for success in today's hyper-competitive marketplace. By leveraging these valuable tools, businesses can make informed decisions that minimize risks, maximize opportunities, and ultimately gain a competitive edge.

II. Competitive Intelligence: unveiling business insights

CI plays a pivotal role in empowering organizations to thrive without missteps. By proactively gathering and analyzing relevant information, businesses can:

▷Unveil competitor and partners strategies and tactics: CI provides businesses with insights into their competitors' (or partners') strengths, weaknesses, opportunities, and threats (SWOT), enabling them to anticipate and counter competitive moves.

▷ Identify emerging market trends: CI helps businesses stay abreast of evolving market trends, technological advancements, and consumer preferences, allowing them to adapt their strategies accordingly.

▷ Optimize product development and pricing: CI furnishes businesses with valuable information about customer needs, preferences, and pricing sensitivities, empowering them to develop products and services that resonate with their target audience.

▷ Enhance marketing and sales strategies: CI enables businesses to tailor their marketing and sales efforts to specific customer segments, maximizing the effectiveness of their campaigns.

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HOW IS CI DATA GATHERED?

The pursuit of effective CI involves a range of tools, techniques, and methodologies designed to gather pertinent information from diverse sources.

These include:

▷ Publicly available resources: Websites, social media platforms, news articles, industry reports, and government filings provide a wealth of publicly accessible information about competitors, customers, and market trends.

▷ Industry events and conferences: Attending industry events and conferences offers opportunities to network with peers, gather competitor insights, and gain exposure to cutting-edge trends.

▷ Primary research: Conducting primary research through surveys, interviews, and focus groups provides businesses with firsthand insights into customer perceptions, preferences, and needs.

▷ Competitive benchmarking: By benchmarking their performance against industry leaders, businesses can identify areas for improvement and implement strategies to close the gap.

THE ADVANTAGES OF MARKET ANALYSIS

Between the 70s and the 80s Coke sales started to decline. The company assumed that the cause was to be found in the taste of the drink and decided to fix the situation.

To do so, they introduced a sweeter version of the drink and decided to mark the change by renaming it "New Coke". The public approved of the new taste of the drink. However, the company failed to account for the impact of the name change   over their traditional client base, and New Coke turned out to be a flop.

The company quickly rebranded the product with a name more close to their customers' sentiment: "Coke Classic". Doing so, they recovered from the misstep and continued to grow their supporters.

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Another iconic example of failure in listening to marketing trends is Kodak. The company failed at recognizing the importance of the trend of digital photography and this led to their ultimate decline.

Market analysis encompasses a comprehensive examination of the market landscape, providing businesses with insights into industry trends, competitor activities, and customer needs. This process involves:

▷ Assessing market size and growth potential: Understanding the size and growth potential of the market informs businesses about the overall opportunity and helps them allocate resources accordingly.

▷ Identifying key market segments: Segmenting the market based on demographic, psychographic, or behavioural factors enables businesses to tailor their products, services, and marketing strategies to specific customer groups.

▷ Evaluating competitive landscape: Analyzing competitors' strengths, weaknesses, market share, and pricing strategies provides businesses with insights into the competitive landscape and helps them differentiate themselves.

THE VALUE OF COMPETITOR PROFILING

When a company decides to penetrate a market without knowing their competition, the stakes are very high.

As an example, you might remember of a social media platform called Vine. Vine was founded in 2012 and quickly raised to fame with millions of users in its peak time.
However, it shut down in 2017, largely due to its Instagram and TikTok competitors. Vine and TikTok, in particular, were very similar, appealing to micro-vloggers. One of the key differences was that Vine content creators were limited to 6 seconds videos, which restricted their creativity and experimentation.

When Instagram launched 15 seconds videos capabilities, Vine stuck to their 6-second policy. The failure to meet market needs proved to be fatal to Vine.

Competitor profiling involves gathering in-depth information about competitors' strategies, products, services, and financial performance. This process helps businesses:

▷ Identify direct and indirect competitors: Understanding the competitive landscape enables businesses to differentiate themselves from direct competitors and strategically position themselves against indirect competitors.

▷ Assess competitors' strengths and weaknesses: Analyzing competitors' strengths and weaknesses provides businesses with insights into potential threats and opportunities.

▷ Anticipate competitors' moves: By understanding competitors' strategies, businesses can anticipate their next moves and proactively respond to maintain their competitive edge.

WHAT IS SWOT ANALYSIS AND WHY IS IT RELEVANT?

Mark Sochan's book "The Art of Strategic Partnering: Dancing with Elephants", well details how **60-65% of strategic partnerships fail**. Common reasons are unrealistic expectations, failure to agree on objectives, and lack of trust.

To this point, the partnership between Starbucks and Kraft remains in the books as a disastrous example.

Back in 2010, Starbucks was earning $500 Million per year in coffee sales. They were partnering with Keurig for their coffee pods.
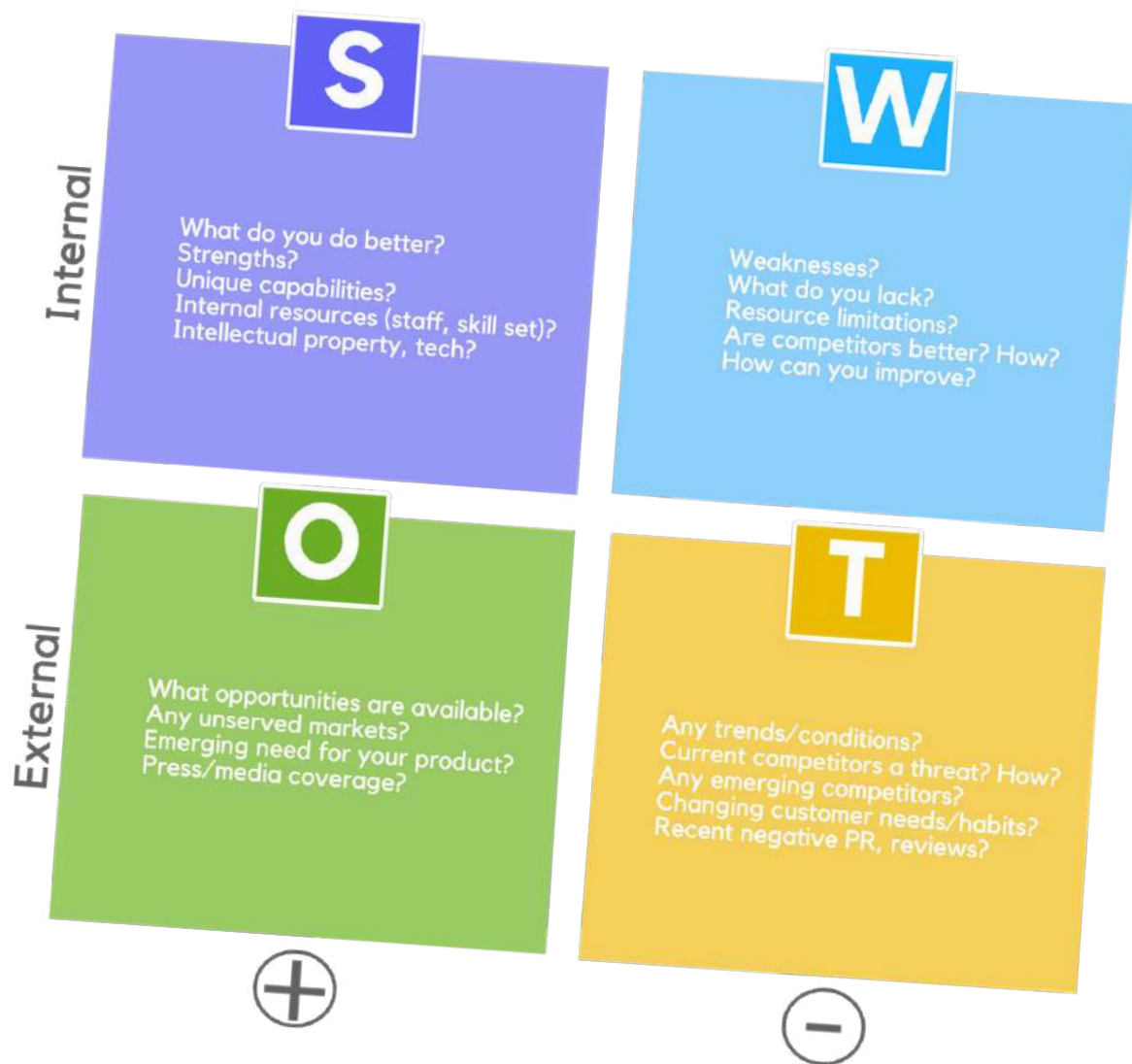After entering the agreement with Kraft, they realized that under the Kraft agreement, Starbucks couldn't manufacture K-cups, and were locked into Kraft's Tassimo system.

Starbucks offered Kraft $750 Million to get out of their agreement ahead of schedule, but Kraft didn't agree to that. In the end, Starbucks decided to break the deal anyways, and ended up paying $2.75 Billion to Kraft.

SWOT analysis **(Strengths, Weaknesses, Opportunities, Threats)** is a strategic planning tool that helps businesses identify their internal strengths and weaknesses, as well as external opportunities and threats.

This can be applied to competitors and partnerships as well, and it summarizes the research and findings from CI and background checks in a neat and easy to read format.

Internal

S

What do you do better?
Strengths?
Unique capabilities?
Internal resources (staff, skill set)?
Intellectual property, tech?

W

Weaknesses?
What do you lack?
Resource limitations?
Are competitors better? How?
How can you improve?

External

O

What opportunities are available?
Any unserved markets?
Emerging need for your product?
Press/media coverage?

T

Any trends/conditions?
Current competitors a threat? How?
Any emerging competitors?
Changing customer needs/habits?
Recent negative PR, reviews?

Shown above is a template for a simple SWOT analysis.

Conducting a thorough SWOT analysis provides businesses with a holistic perspective of their competitive landscape and enables them to formulate effective strategies to leverage their strengths, mitigate weaknesses, capitalize on opportunities, and counteract threats.

ETHICAL CONSIDERATIONS IN CI GATHERING

While CI is an invaluable tool for businesses, it is crucial to adhere to ethical principles and comply with legal requirements when gathering and utilizing information.

This is why at Negative PID we always work keeping key ethical considerations in mind, such as:
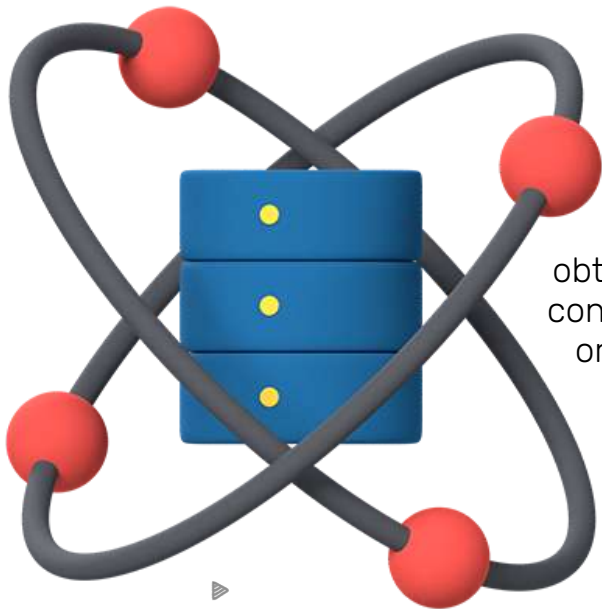
▷Respecting privacy: Businesses must respect individuals' privacy and avoid gathering or using information that is not publicly available or consented to.

▷ Maintaining confidentiality: Sensitive information obtained through CI should be treated with utmost confidentiality and protected from unauthorized access or disclosure.

▷ Avoiding deception: CI gathering activities should not involve deception, misrepresentation, or illegal tactics.

▷ Ensuring accuracy and integrity: Businesses must ensure the accuracy and integrity of information gathered through CI and avoid relying on misleading or unsubstantiated sources.

By adhering to these ethical principles, we can leverage CI effectively while maintaining our customers' reputation and upholding their social responsibility.

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III. The need for Background Checks

Conducting comprehensive background checks on individuals and entities has become more and more an indispensable practice for organizations.

53% of all job applications contain inaccurate information.
Source: Society of Human Resources Management, 2003

49% of the 3,100 hiring managers surveyed caught a job applicant fabricating some part of his/her resume.
Source: CareerBuilder.com Survey, 2008

34% of all application forms contain outright lies about experience, education, and ability to perform essential functions on the job.
Source: Wall Street Journal, 2003

11% of job applicants misrepresented why they left a former employer.
Source: Resume Inflation: Two Wrongs May Mean No Rights, by Barbara Kat Repa, Nolo.com, 2001

09% of job applicants falsely claimed they had a college degree, listed false employers, or identified jobs that didn't exist.
Source: Resume Inflation: Two Wrongs May Mean No Rights, by Barbara Kat Repa, Nolo.com, 2001

In 2019 **FINRA (the Financial Industry Regulatory Authority)** fined City Bank $1.25 Million for failing to "conduct timely or adequate background checks", which led the company to employ ex convicts. The same happened to JP Morgan Chase in 2017 with a $750,000 fine. In the case of Drake & Scull International (DSI), the failure to conduct adequate background checks cost the company a global $857.5 Million.

The **U.S. Department of Labor** estimates that making a bad hiring decision can come at a steep price, equivalent to 30% of the potential earnings in the first year. This accounts for the costs of safeguarding stakeholder trust, mitigating financial losses, preserving reputation, rebuilding trust, and regain compliance with regulations.

Thorough background checks can help businesses mitigate a wide range of risks, including:

▷ Hiring the wrong person: Background checks can uncover potential red flags in an individual's past, such as criminal records, financial discrepancies, or ethical violations. By identifying these risks early on, businesses can avoid hiring individuals who could pose a threat to their organization or its employees.

▷ Forming partnerships with unreliable entities: Before entering into partnerships with other companies or organizations, conducting background checks can provide valuable insights into their financial stability, regulatory compliance, and ethical practices. By partnering with reputable entities, businesses can protect their brand reputation and safeguard their investments.

▷ Falling victim to fraud or theft: Background checks can help businesses identify individuals with a history of financial fraud or theft, reducing the risk of financial losses and damage to the organization's reputation.

LEGAL AND ETHICAL CONSIDERATIONS IN CONDUCTING BACKGROUND CHECKS

While background checks are essential for risk mitigation, legal and ethical guidelines must be respected when conducting these investigations. Key considerations include:

▷ Obtaining consent: Businesses must obtain written consent from individuals before conducting background checks.

▷ Ensuring accuracy and fairness: Businesses must ensure that the information gathered through background checks is accurate and up-to-date. They should also avoid basing decisions on discriminatory factors such as race, gender, or religious beliefs.

▷ Complying with data privacy laws: Businesses must comply with data privacy laws and regulations in

the jurisdictions where they operate. This includes maintaining data security and providing individuals with access to their personal information.

IV. The role of Data Science

Data Science is what makes CI and Background Checks possible. It holds indeed a primary role in:

Data Acquisition and Processing

▷ Data Mining: Data science techniques like web scraping, social media mining, and API integration enable CI professionals to gather vast amounts of data from various sources, including competitor websites, social media platforms, news articles, and public records.

▷ Data Cleaning and Preprocessing: Data scientists clean, organize, and transform raw data into a format suitable for analysis, removing noise and inconsistencies to ensure accurate results.

Data Analysis and Insights Generation

▷ **Statistical Analysis:** Data scientists use statistical methods to identify patterns, trends, and correlations within the collected data. This allows for a deeper understanding of competitor strategies, market dynamics, and customer sentiment.

▷ **Predictive Modelling**: Machine learning algorithms are used to build models that predict future competitor actions, market trends, and potential risks. This enables proactive decision-making and strategic planning.

▷ **Visualization and Communication**: Business Analysts create compelling visualizations and dashboards to communicate complex insights to stakeholders in a clear and actionable format.

Background Checks and Risk Assessment

▷ Data Aggregation and Verification: Data science facilitates the collection and verification of information from diverse sources such as public records, social

media, and financial databases, providing a comprehensive picture of an individual's background.

▷ Fraud Detection and Anomaly Identification: AI algorithms can detect discrepancies and anomalies in background data, helping identify potential risks and fraudulent activity.

▷ Risk Scoring and Decision Support: Data science models assess the risk associated with potential hires or partners based on their background information, enabling more informed decision-making.

THE ADVANTAGES OF USING DATA SCIENCE FOR CI

Data Science also provides a powerful framework for all types of Intelligence. Among the benefits of starting building an Intelligence or Background Check practice founded on Data Science are:

▷ Increased Efficiency
▷ Improved Accuracy
▷ Deeper Insights
▷ Predictive Capabilities
▷ Improved Scalability

Overall, data science plays a crucial role in driving efficiency, accuracy, and insightfulness in both competitive intelligence and background checks. As the field of data science continues to evolve, we can expect even more innovative applications that will further enhance these critical processes.

V. CI and Background Checks in the Digital World

Today's technology offers powerful solutions in the form of data mining, analytics, and Artificial Intelligence (AI).

For example, a company can use data mining to analyze online reviews and social media conversations to understand customer perception of their competitor's products. This information can be used to identify areas where their competitor is falling short and develop strategies to

differentiate their own offerings.

Artificial Intelligence as a tool for building a competitive advantage
AI is revolutionizing CI by automating tasks, improving data analysis, and generating deeper insights.

AI-powered tools can automatically gather and analyze data from various sources, including news articles, social media platforms, company websites, and financial reports. This frees up valuable time for CI professionals to focus on strategic analysis and decision-making.

Additionally, AI can be used to create predictive models that anticipate competitor moves and identify potential disruptions. These models can be trained on historical data and real-time information to identify patterns and predict future outcomes with greater accuracy.

For instance, an AI-powered tool can analyze competitor job postings and patent applications to identify potential new product launches or technological advancements. This information can then be used to develop proactive strategies to maintain market share and respond to emerging threats.

THE AI ROLE IN BACKGROUND SCREENING

AI-powered technologies are also transforming background checks by automating the process, making it more efficient and accurate. AI algorithms can analyze vast databases of public records, including criminal history, education verification, and employment history, to identify potentially risky candidates or partners.

This technology can also help mitigate compliance risks by ensuring that background checks are conducted in a fair and unbiased manner. Additionally, AI can be used to identify emerging trends and risks in the global landscape, allowing organizations to make informed decisions about their international operations.

CHALLENGES AND RISKS OF MODERN TECHNOLOGIES

While technology offers numerous benefits for CI and background checks, it also presents certain challenges and risks:

▷ Data Bias: AI algorithms can be biased based on the data they are trained on. This can lead to inaccurate or unfair results, particularly when dealing with sensitive information like criminal history or employment records.

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▷ Privacy Concerns: Collecting and analyzing vast amounts of data raises concerns about individual privacy and data security. Organizations must ensure they comply with data privacy regulations and have robust security measures in place to protect sensitive information.

▷ Algorithmic Explainability: AI algorithms can be complex and opaque, making it difficult to understand how they reach their conclusions. This lack of transparency can hinder trust and lead to biased or unfair decisions.

▷ Technological Dependence: Over-reliance on AI-powered tools can lead to a lack of critical thinking and human intuition. It's crucial to maintain a balance between technology and human expertise for effective CI and background screening.

By understanding these challenges and implementing appropriate safeguards, at Negative PID we can leverage technology responsibly. Our customers are so able to gain a significant competitive advantage and make informed decisions.

VI. Lessons learnt and best practices

W'hat we have learned along the way can be summarized in a few points for best practices that will go a long way in the implementation of a framework:

> **Focus on Specific Business Objectives**: Clearly define your CI goals and tailor your data collection and analysis to achieve them.

> **Use the Right Technology**: Leverage data mining, analytics, and AI tools to automate tasks, improve data analysis, and generate deeper insights.

> **Maintain Ethical Standards**: Ensure your CI practices comply with data privacy regulations and ethical guidelines.

> **Develop a Strong Human-Technology Synergy**: Combine the power of AI with human expertise to gain a comprehensive understanding of your landscape.

> **Integrate Background Checks into Decision-Making**: Use background checks as a valuable tool to mitigate risks, verify information, and protect your organization.

> **Proactively Monitor and Adapt**: Continuously refine your CI and stay ahead of technologies and trends.

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EMERGING TRENDS

Several key trends are shaping the future of CI and background checks:
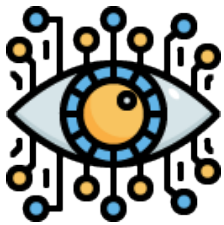
Artificial intelligence (AI) and machine learning (ML)
AI and ML are revolutionizing the way CI is gathered and analyzed. These technologies can be used to automate data collection, identify patterns and trends, and generate insights that would be impossible to obtain manually.

Big data
The increasing availability of data is fuelling the development of new CI and background check methodologies. Big data can be used to create comprehensive profiles of individuals and organizations, providing businesses with a deeper understanding of their competitors and potential partners.

Social media
Social media platforms are becoming increasingly important sources of information for CI and background checks. Businesses can use social media to gather information about potential employees, partners, and competitors. However, it is important to do so in a way that complies with privacy laws and regulations.

Globalization
The globalized nature of the modern economy means that businesses need to be aware of the different CI and background check laws and regulations that apply in different countries.

Continuous monitoring
In today's rapidly changing world, it is no longer enough to conduct a one-time background check. Businesses need to continuously monitor their employees, partners, and competitors for any changes that could pose a risk.

VII. Conclusion

The need for an integrated Intelligence strategy that combines BI, CI, and background checks is more and more obvious. If properly implemented, they can stir a business towards success by reducing risks and unwanted surprises.

In all three disciplines, human expertise and access to reliable data is required.

However, their effectiveness hinges on ethical and comprehensive approaches, ensuring responsible data collection, analysis, and utilization. Therefore, choosing the right vendors and internal resources is key to the success of the strategy.

Fostering a sustainable future ultimately requires:

▷ Responsible Innovation: AI and big data offer powerful CI tools but require responsible use to avoid ethical pitfalls and bias amplification.

▷ Long-Term Thinking: Ethical approaches build trust and transparency, fostering long-term relationships with employees, partners, and stakeholders.

At Negative PID we have built an Intelligence Platform that helps businesses of all sizes to make daily better decisions and reduce risks. We also offer intelligence services that adopt a holistic approach, prioritizing individual rights, transparency, and responsible data practices.

This is how we empower our customers to mitigate risks, enhance their competitive advantage, and build a sustainable future.

https://negativepid.com