



Governança, riscos, compliance e inovação: combinam?

Tendências e visão Futura na era digital.

Felipe Dal Belo

São Paulo, SP
26 de setembro de 2018



Felipe Dal Belo

Governance, Risk and Compliance Executive

- Advisory Board Member – **Thomson Reuters**
- Risk & Legal Board Member – **Italy Brazil Chamber**
- Board Member – **Montvero Business Intelligence**
- Chief Compliance Officer (VP) – **Telecom Itália (TIM)**
- Global Audit and Compliance Officer - **Coca-Cola**
- Business Development Leader - **Johnson & Johnson**
- Operations and Six Sigma Supervisor – **Sanofi-Aventis**

- Finance & Accounting - Columbia Business School.
- Big Data & Business Analytics – Kellogg School of Management.
- Economic-Financial Management – Fundação Dom Cabral.
- Master in Business Administration - Fundação Getúlio Vargas.
- People Development Leadership - Harvard Business School.
- Business Strategy and Sustainability – IESE.
- Black Belt Certification (Six Sigma) – USP.
- PhD student – Organization Management, Business Analytics-USP | IPEN

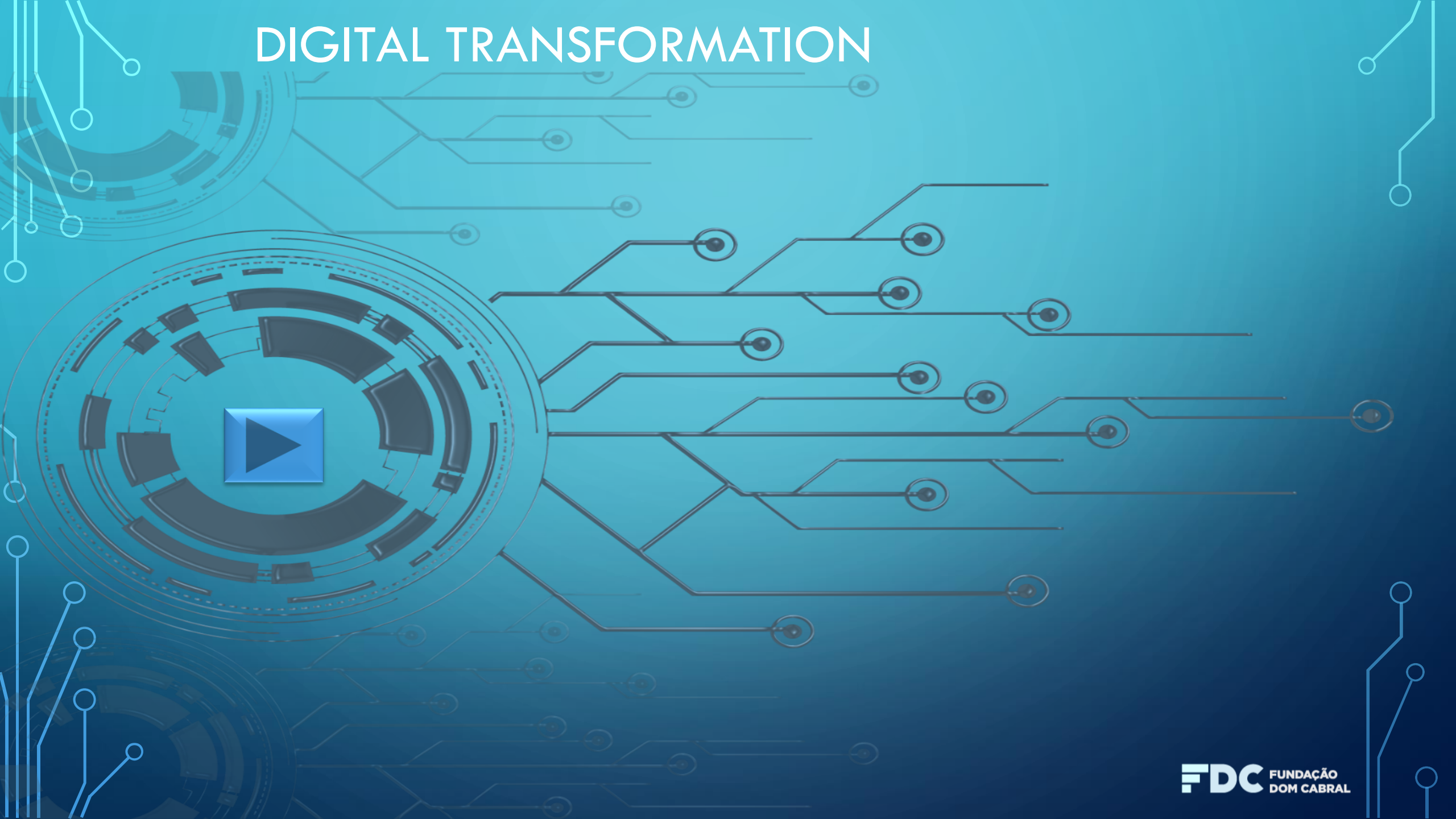
Governance Risk and Compliance (GRC):

- Enterprise Risk Management
- Sarbanes Oxley| COSO certification
- FCPA, UK Bribery act, Brazilian/ Italian anti-corruption laws
- Cyber Security requirements
- Anti-Money Laundering
- Investor Relations
- ACL platform
- Due Diligence
- Privacy

Business and Supply Chain:

- Strategic Economic-Finance Planning
- New Business Development
- Merger & Acquisition;
- Business Analytics
- Government Affairs
- Environmental, Consumer Relations
- Health & Safety
- Licenses & Permits

DIGITAL TRANSFORMATION



Gerhd Leonhard: Digital Ethics, AI, Humanity and Brands

“It’s quite clear if we don’t have a **moral compass** and a **value system** and eventually we disconnect, then everything falls apart because we’ve **lost our purpose**. The bottom line as you know **technology has no ethics**, but **society** and **humans depend on it**”.



• Qual a **quantidade de dados** que nós criamos **todos os dias**?

“The amount of data we produce every day is truly mind-boggling.

There are **2.5 quintillion bytes of data** created each day at our current pace, but that pace is only accelerating with the growth of the Internet of Things (IoT)”.

Fonte: **FORBES**, 21 de maio, 2018.

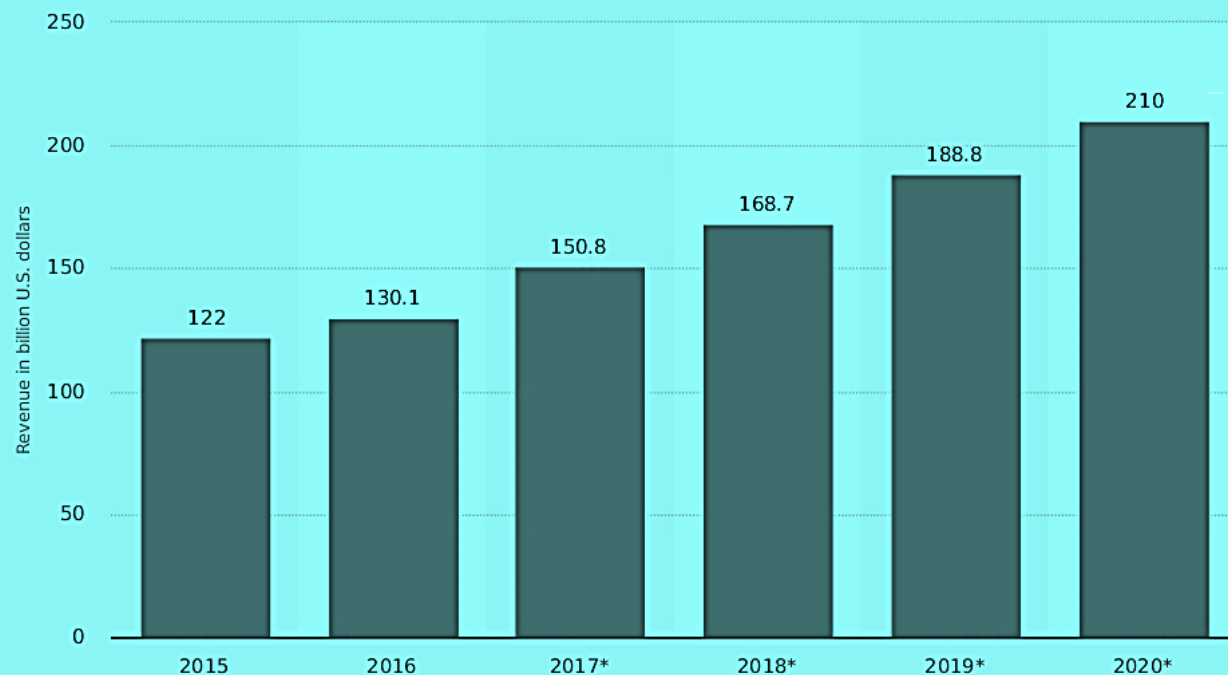


Origens:

- Redes sociais
- Comunicação
- Fotos digitais
- Serviços
- Internet das coisas

MERCADO: BIG DATA & BUSINESS ANALYTICS

Revenue from big data and business analytics worldwide from 2015 to 2020 (in billion U.S. dollars)



Source
IDC
© Statista 2018

Additional Information:
Worldwide; 2015 to 2017

“A expectativa é que o mercado mundial de *Big Data* e *Analytics* chegue a **US\$ 210 Bilhões** em 2020.

Fonte: Statista 2018

BIG DATA

- Big data is **high-volume**, **high-velocity** and/or **high-variety** information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation.

Fonte: Gartner, 2017.

4 Dimensões



Fonte: IBM, 2013.

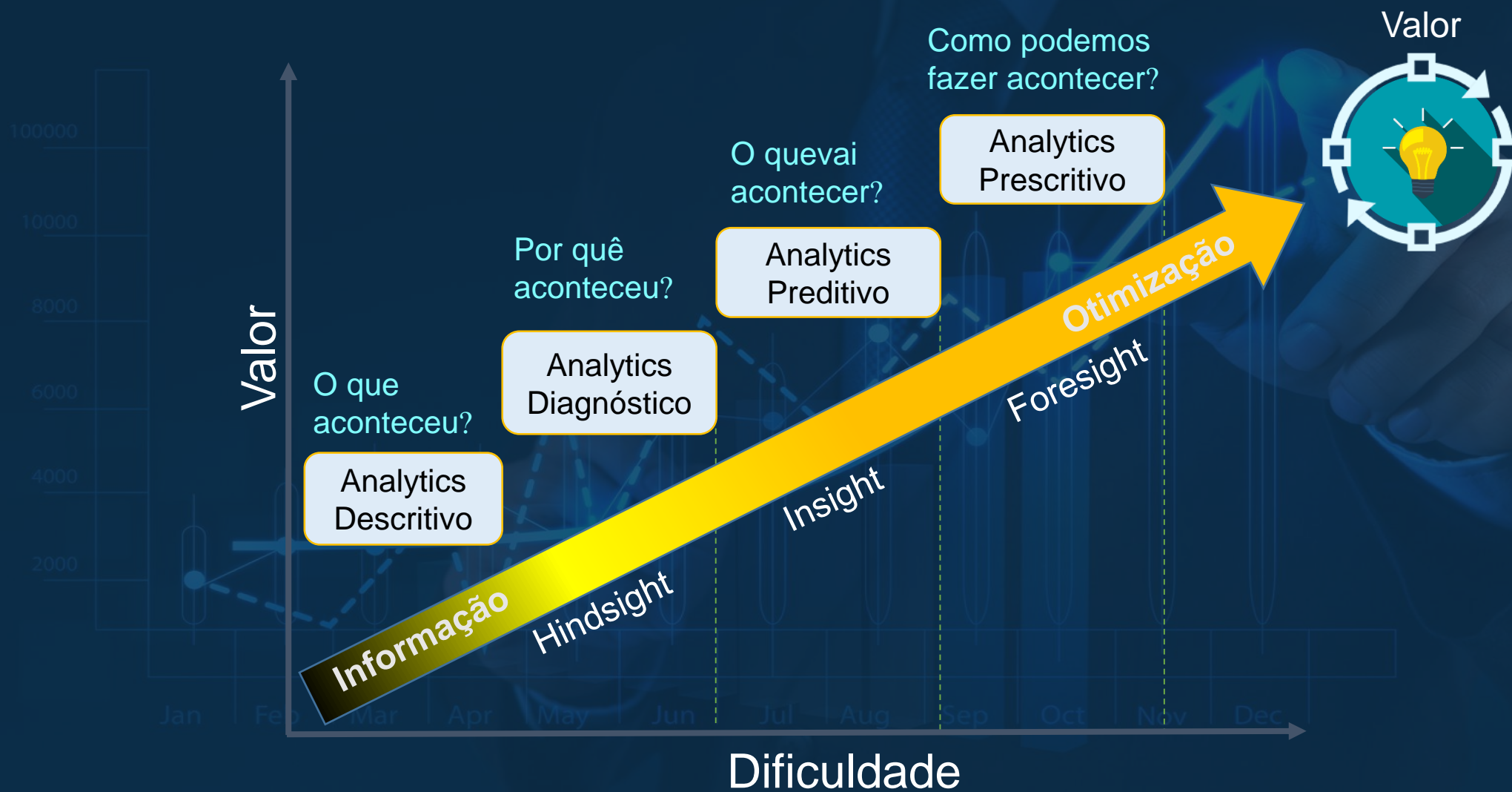
ANALYTICS

Analytics is the discovery, interpretation, and communication of meaningful patterns in **data**. Especially valuable in areas rich with recorded information, analytics relies on the simultaneous application of **statistics**, **computer**, **programming** and **operations research** to quantify performance.

Aplicações



ANALYTICS



CIO AGENDA GARTNER 2018



3,160 CIOs



98 countries



15 main industries

Porcentagem de respondentes por indústria.



gartner.com/SmarterWithGartner

CIO AGENDA GARTNER 2018

The survey represented approximately **US\$13 trillion** in revenue/public sector budgets and \$277 billion in IT spending.

The survey showed that a majority of CIOs say that technology trends, specifically **cybersecurity** and artificial **intelligence (AI)**, will significantly change how they do their jobs in the near future.

"In response to these concerns, the survey found that **digital security ranks high** on the CIO agenda as **35% of respondents** said they have already invested and deployed some aspect of digital security.

CIO AGENDA GARTNER 2018

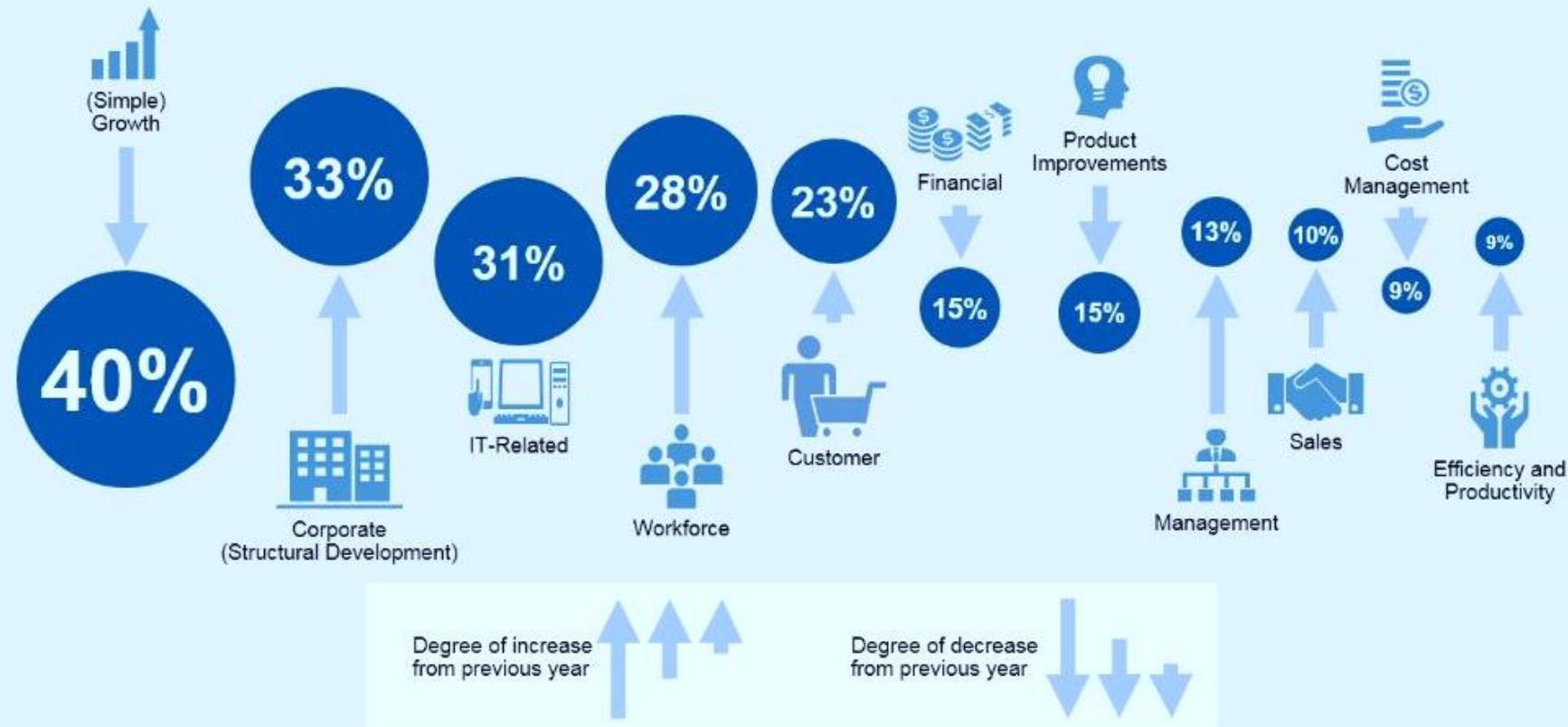
“Forty-seven percent of CEOs said they are being challenged by the board of directors to make progress in digital business, and this enterprisewide focus on digital is also being felt by CIOs across industries”.



CIO AGENDA GARTNER 2018

CEO Top Business Priorities

Percentage of respondents, ranked by summary top three mentions



n = 460

Please tell us about your organization's top five strategic business priorities for the next two years (2018/2019).

ID: 354611

© 2018 Gartner, Inc.

CIO AGENDA GARTNER 2018

The survey found that **growth** is the No. 1 CIO priority for 2018, as reported by **26% of CIOs**. The use of **digitized products and services** is expected to drive new forms of revenue, business value and engagement of customers and citizens

CIO AGENDA GARTNER 2018



3,160 CIOs



98 countries



15 main industries

“CIOs across most industries are struggling **to move from experimentation to scaling** their digital business initiatives”

A low-angle, upward-looking perspective of several tall, modern skyscrapers. The buildings are dark, with many windows visible, some of which are illuminated from within, creating a pattern of small lights. The sky is a pale, overcast blue. The perspective creates a sense of height and scale, with the buildings converging towards the top of the frame.

Riscos Corporativos

RISCOS – OS 5 PRINCIPAIS QUE AFETAM AS EMPRESAS

65% Regulatórios



34%
Tecnologia da
informação



30%
Condições
econômicas e
de mercado



60% Operacionais



31%
Execução
estratégia de
negócios

RISCOS CORPORATIVOS— CRIMES FINANCEIROS



Fonte: Thomson Reuters - Pesquisa Global de Crime financeiro 2018.

RISCOS CORPORATIVOS – CRIMES CIBERNÉTICOS

76%

dos CEOs não consideram
suas empresas preparadas
para responder a um
ataque cibernético

Fonte KPMG: Pesquisa CEO Outlook 2017



Desenvolvido por Felipe Dal Belo

Business Analytics

Inteligência artificial

IMPACTO DA INTELIGÊNCIA ARTIFICIAL E ANALYTICS

CRIAÇÃO DE VALOR FRENTE AOS DESAFIOS



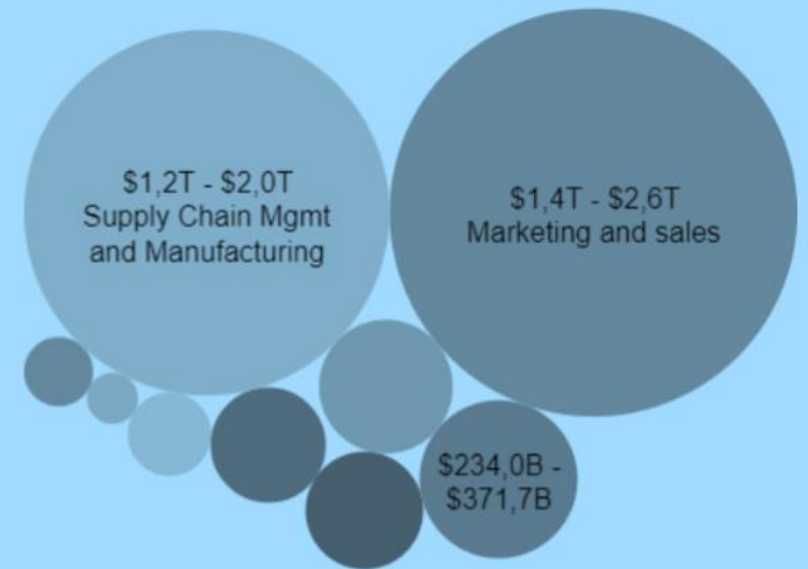
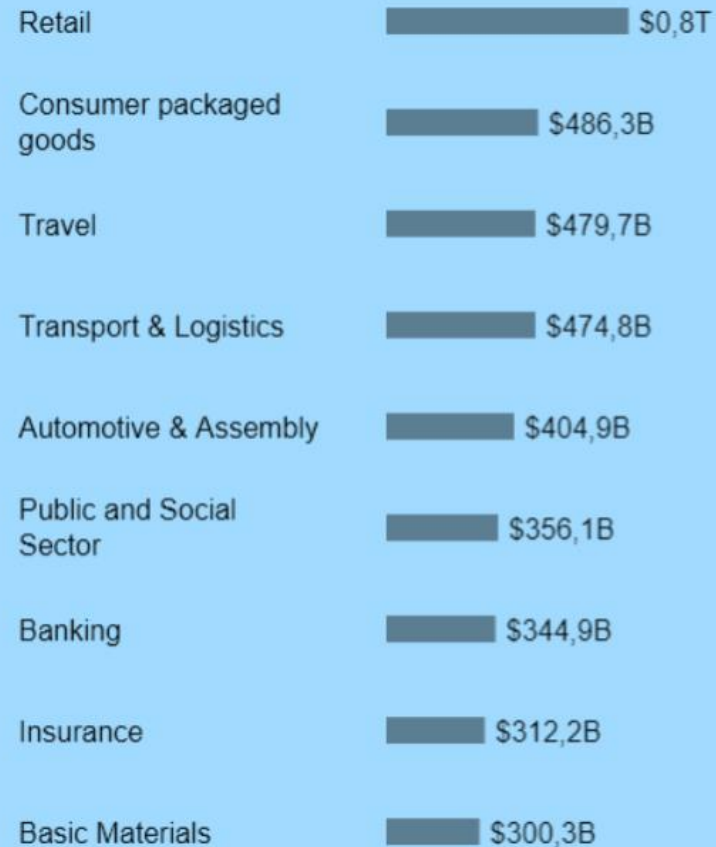
US\$ 3,5T - 5,8T



19 tipos
indústrias e ou
setores



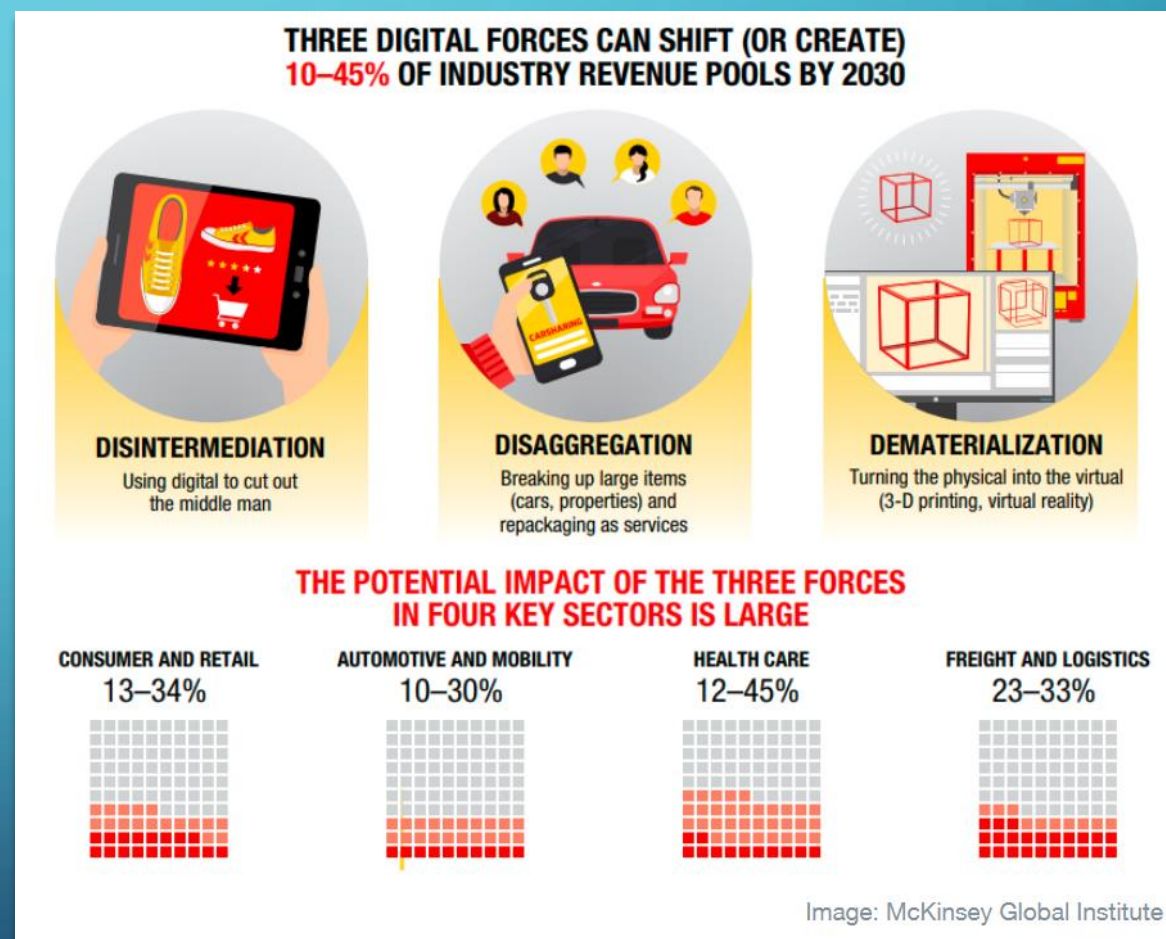
400 diferentes
casos de
negócio.



by Business problem for
Industry: Todos
Function: Todos

DIGITALIZAÇÃO – CONTEXTO GLOBAL

By 2030, digitization in China has the potential to shift (and create) value equivalent to 10 to 45% of the revenue pools across the consumer goods and retail, automotive and mobility, healthcare, and freight and logistics industries.



DIGITALIZAÇÃO – CONTEXTO GLOBAL

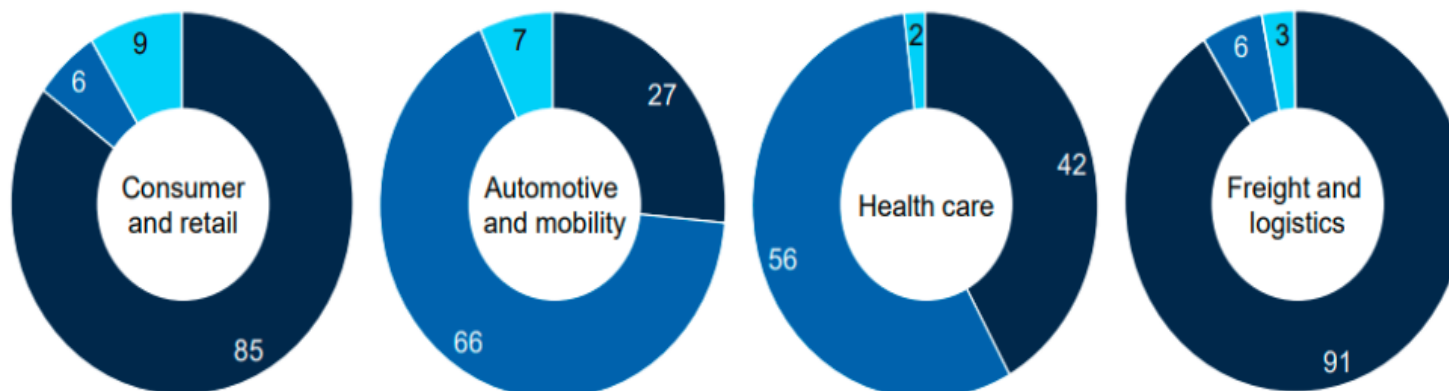
Disintermediation and disaggregation are the major forces in value-chain restructuring

HIGH SCENARIO

Value shift patterns

% of total digital disruption

■ Disintermediation ■ Disaggregation ■ Dematerialization



SOURCE: McKinsey Global Institute analysis

Image: McKinsey Global Institute



For large, traditional companies in particular, this means a substantial portion of their revenue could be at risk of being lost to new products, services and business models from digital companies.

Fonte: McKinsey global Institute

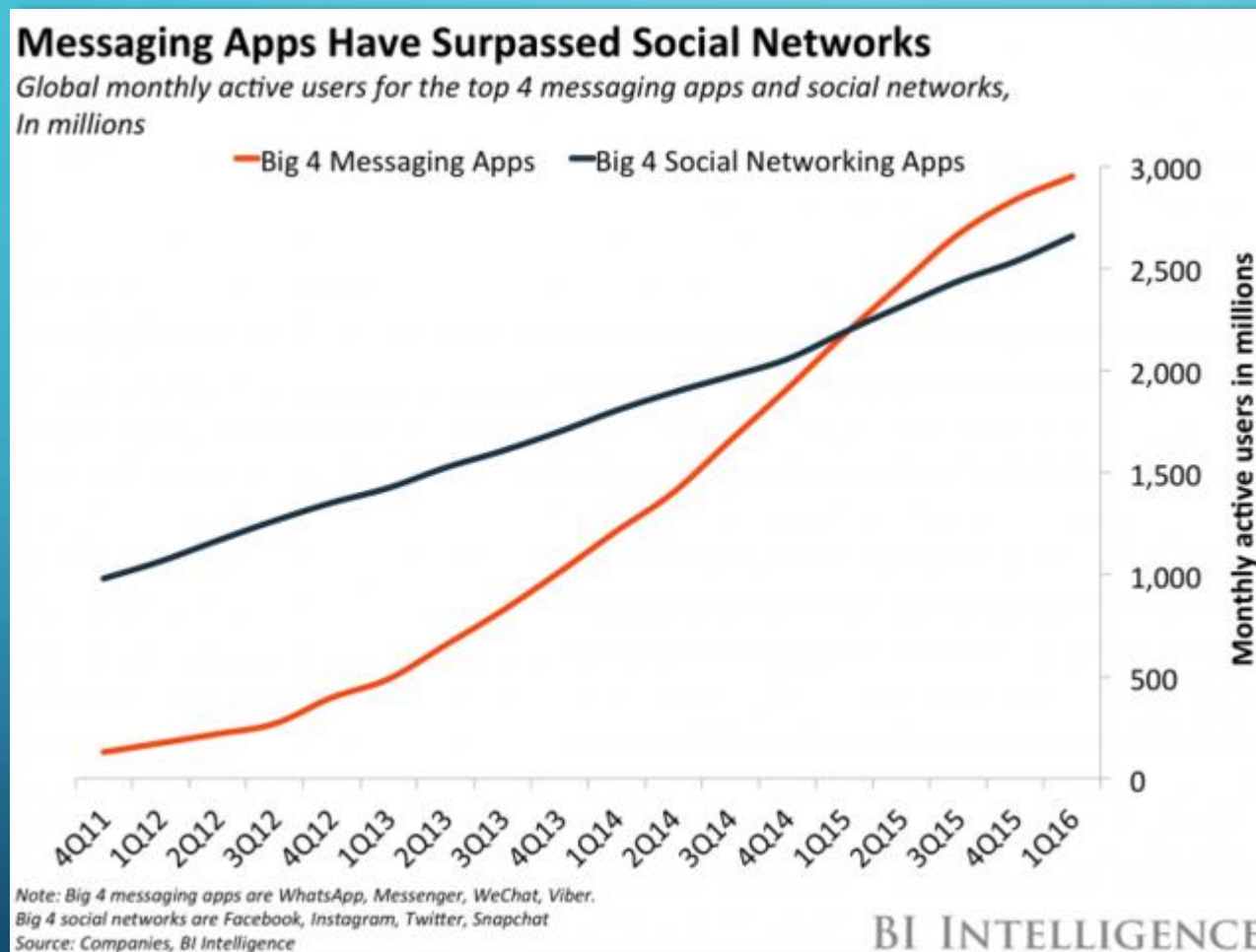
BOTS – WORLD ECONOMIC FORUM



According to a recent report by Grand View Research, the global chatbot market is expected to reach **\$1.23 billion by 2025**, a compounded annual growth rate (CAGR) of 24.3%

Fonte: Busines Insider – Chatbox Market stats 2017

BOTS – TENDÊNCIAS E CRESCIMENTO



The four top messaging apps surpassed the top four social networks in terms of global monthly active users in 2015, and they continue to grow.

BOTS – TENDÊNCIAS E CRESCIMENTO

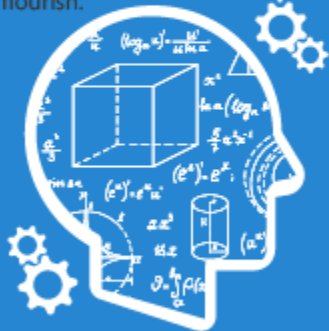
ARTIFICIAL INTELLIGENCE

Early artificial intelligence stirs excitement.



MACHINE LEARNING

Machine learning begins to flourish.



DEEP LEARNING

Deep learning breakthroughs drive AI boom.



1950's 1960's 1970's 1980's 1990's 2000's 2010's

Since an early flush of optimism in the 1950's, smaller subsets of artificial intelligence - first machine learning, then deep learning, a subset of machine learning - have created ever larger disruptions.

- Maiores avanços em Inteligencia artificial e Aprendizado de máquina:
 - Percepção;
 - Cognição.
- Reconhecimento de voz ainda tem um longo percurso a se desenvolver.
 - ✓ Líderes: Apple, Amazon, and Google:
 - ✓ Produtos: Siri, Alexa and Google Assistant, respectively.

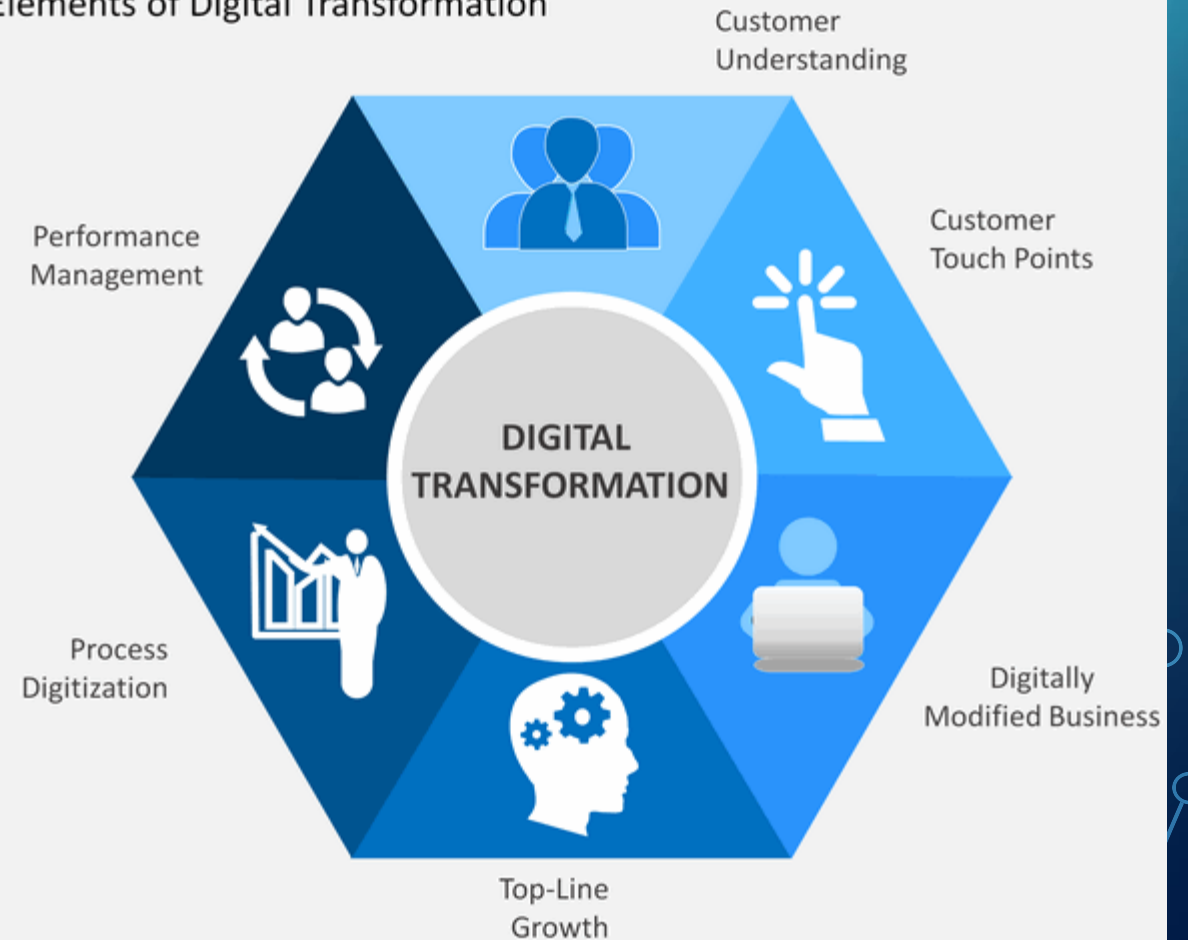
TRANSFORMAÇÃO DIGITAL

Habilidades necessárias para a transformação digital



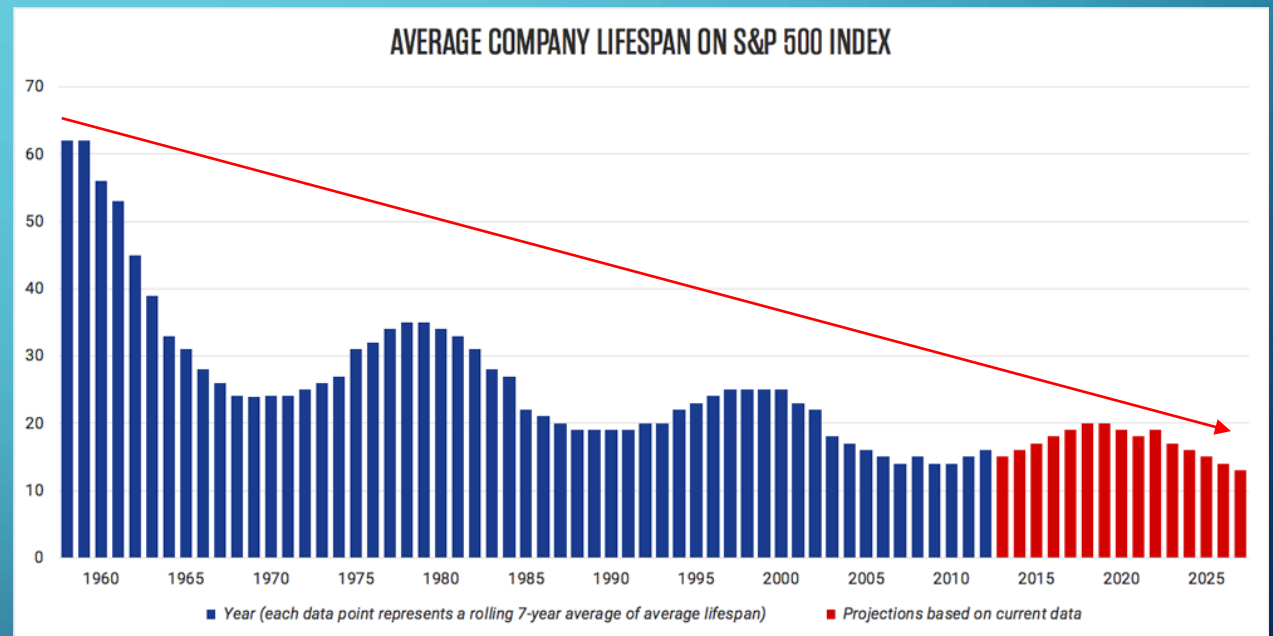
Principais elementos da transformação digital

Core Elements of Digital Transformation



TEMPO DE VIDA MÉDIO DAS EMPRESAS NA S&P 500

- The disruptive force of technology is killing off older companies earlier and at a much faster rate than decades ago, squeezing employees, investors and other stakeholders, according to a new report.



- In 1965, the average was 33 years.
- By 1990, it was 20 years.
- By 2026 the forecast is 14 years.

BIG DATA, ANALYTICS, AI, MACHINE LEARNING, DEEP LEARNING, NEURAL NETWORK



BIG DATA, ANALYTICS, AI, MACHINE LEARNING,
DEEP LEARNING, NEURAL NETWORK

INNOVATION EXAMPLES



Cancer detection pen

BIG DATA, ANALYTICS, AI, MACHINE LEARNING, DEEP LEARNING, NEURAL NETWORK

INNOVATION EXAMPLES

FDA Approves AI Tool That Can Detect Wrist Fractures

The FDA has approved a new tool that can improve the accuracy of wrist fracture diagnosis.

By Jessica Miley
May, 28th 2018



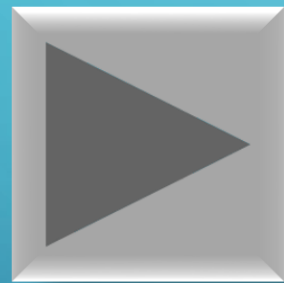
474
shares

0
comments



BIG DATA, ANALYTICS, AI, MACHINE LEARNING, DEEP LEARNING, NEURAL NETWORK

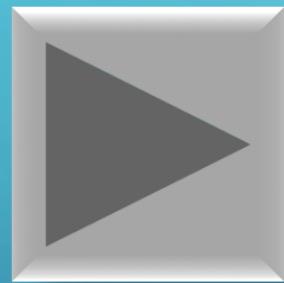
INNOVATION EXAMPLES



Intelligent stethoscope

BIG DATA, ANALYTICS, AI, MACHINE LEARNING, DEEP LEARNING, NEURAL NETWORK

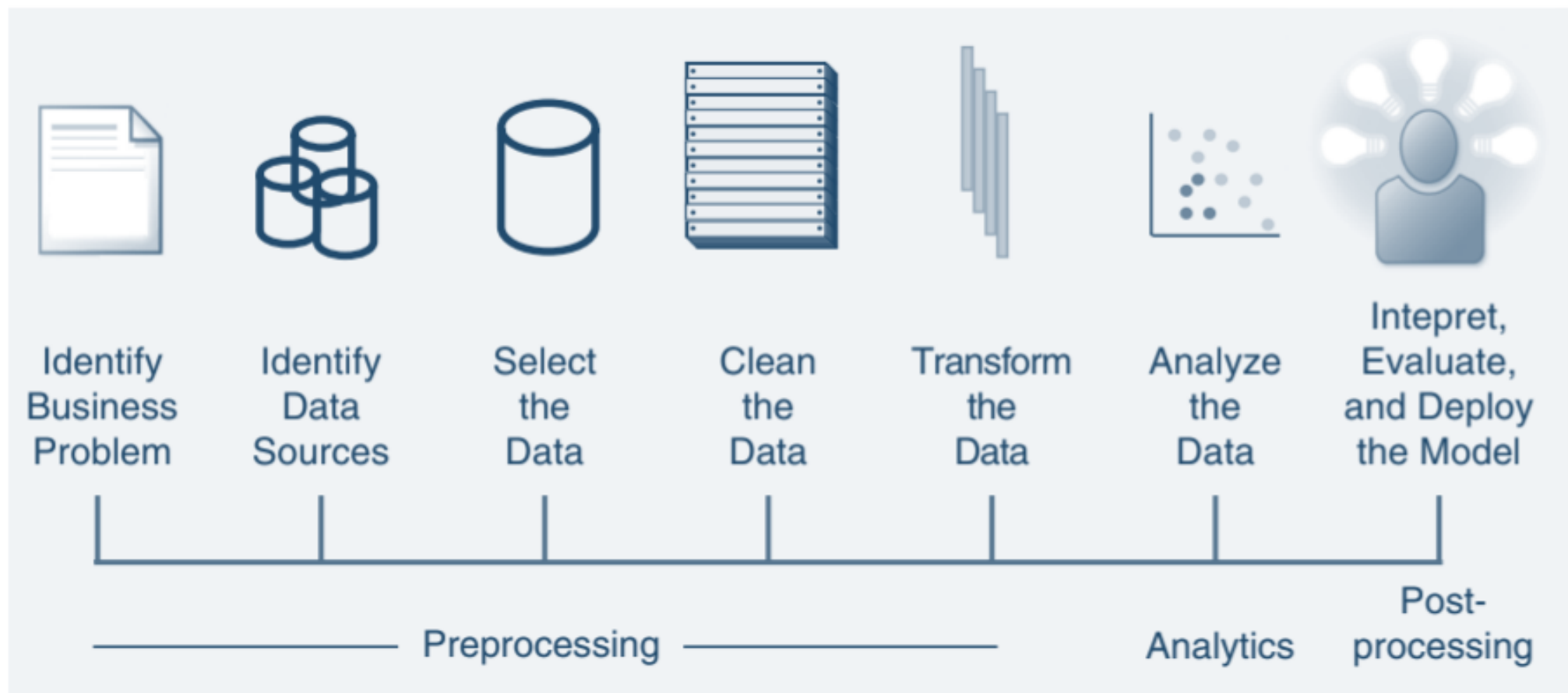
INNOVATION EXAMPLES



Fight against plastic

Técnicas de *Big Data* contra fraude

Modelo de análise de fraude



Fonte: Fraud Analytics – Wiley, 2015

Técnicas de *Big Data* contra fraude

Fraude em cartão de crédito

Table 1.3 Example Credit Card Transaction Data Fields

Transaction ID	Transaction type	Date of transaction
Time of transaction	Amount	Currency
Local currency amount	Merchant ID	Merchant category
Card issuer ID	ATM ID	Cheque account prefix

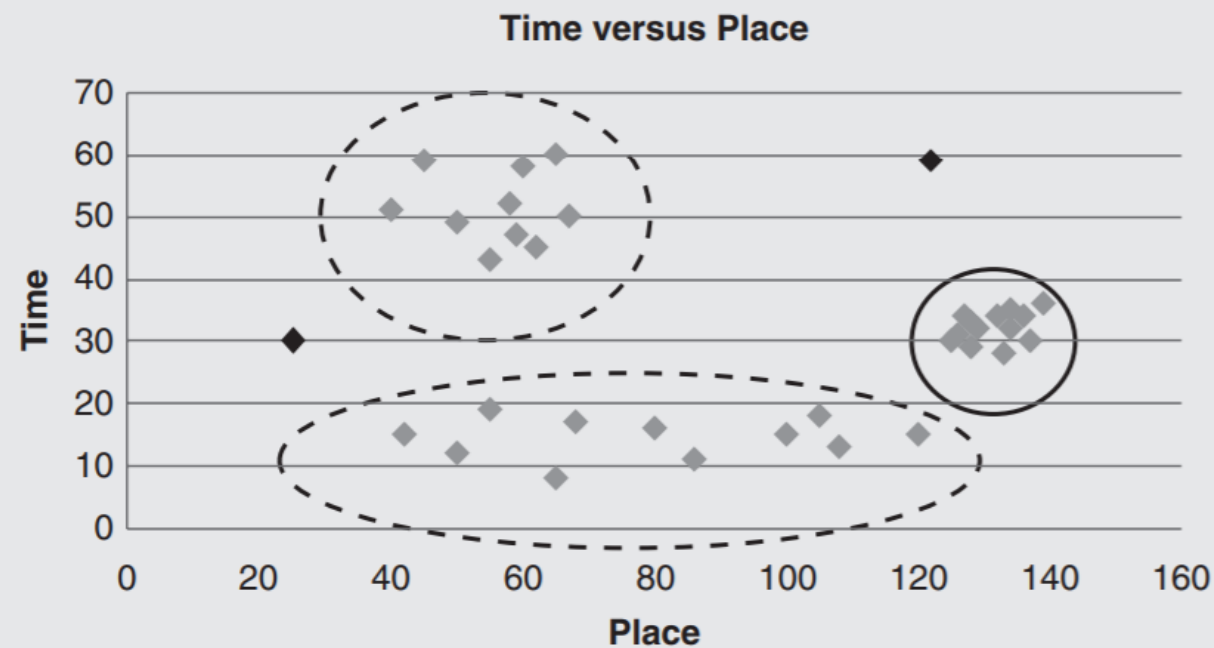
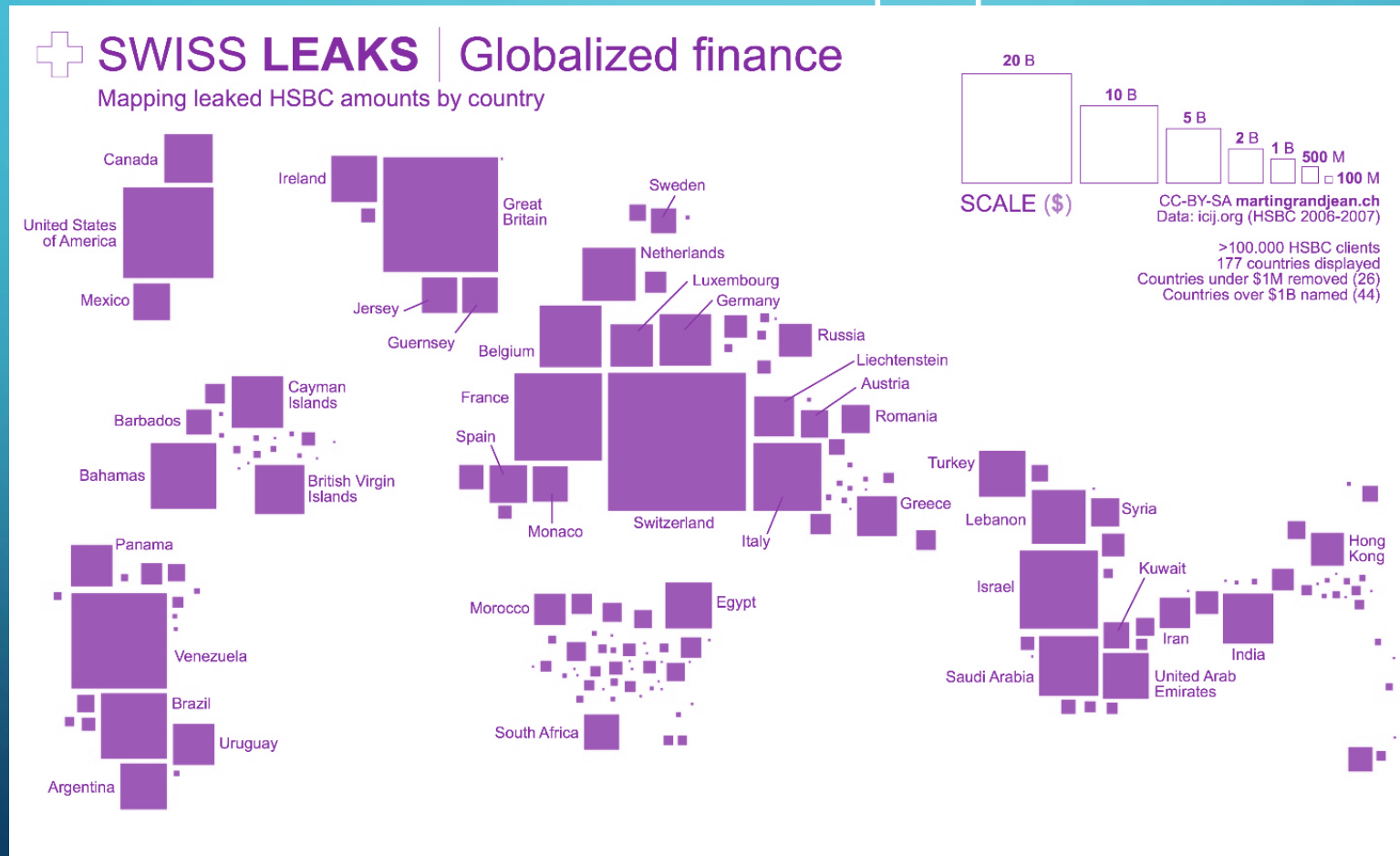


Figure 1.4 Outlier Detection at the Data Item Level

Técnicas de *Big Data* contra fraude

Data Visualization:

Evasão tributária por país:



EXEMPLOS CASOS PRÁTICOS

PREVENÇÃO DE FRAUDE E DETECÇÃO.

Alimentação e
entretenimento

Marketing & Eventos

SAC e Vendas

Cyber e ameaças
internas

Contratos

Distribuição & Análise de
margens

Pagamento de terceiros

Investimentos em projetos

Centros de custos

Inventário

Due Diligence e
monitoramento

Reconhecimento de
receita

Atividades de monitoramento emergentes incluem:

Monitoramento Redes
sociais

Monitoramento
avançado de email

Dispositivos móveis

PLANEJAMENTO ESTRATÉGICO



WHAT DIRECTORS THINK

SPEED KILLS

A CORPORATE BOARD MEMBER/SPENCER STUART SURVEY

“We found that one thing is on the minds of directors more than anything else these days: technology”

Spencer Stuart Survey specialist

HIGHLIGHTS

6 out of 10 directors say their top concern is cybersecurity.

57% of directors say an enhanced brand image and reputation and a greater ability to attract and retain employees

are the two biggest benefits of a corporate social responsibility program.

The majority of directors support increased cyber regulation.

20 percent of new S&P 500 directors have backgrounds in the technology or telecommunications industries.

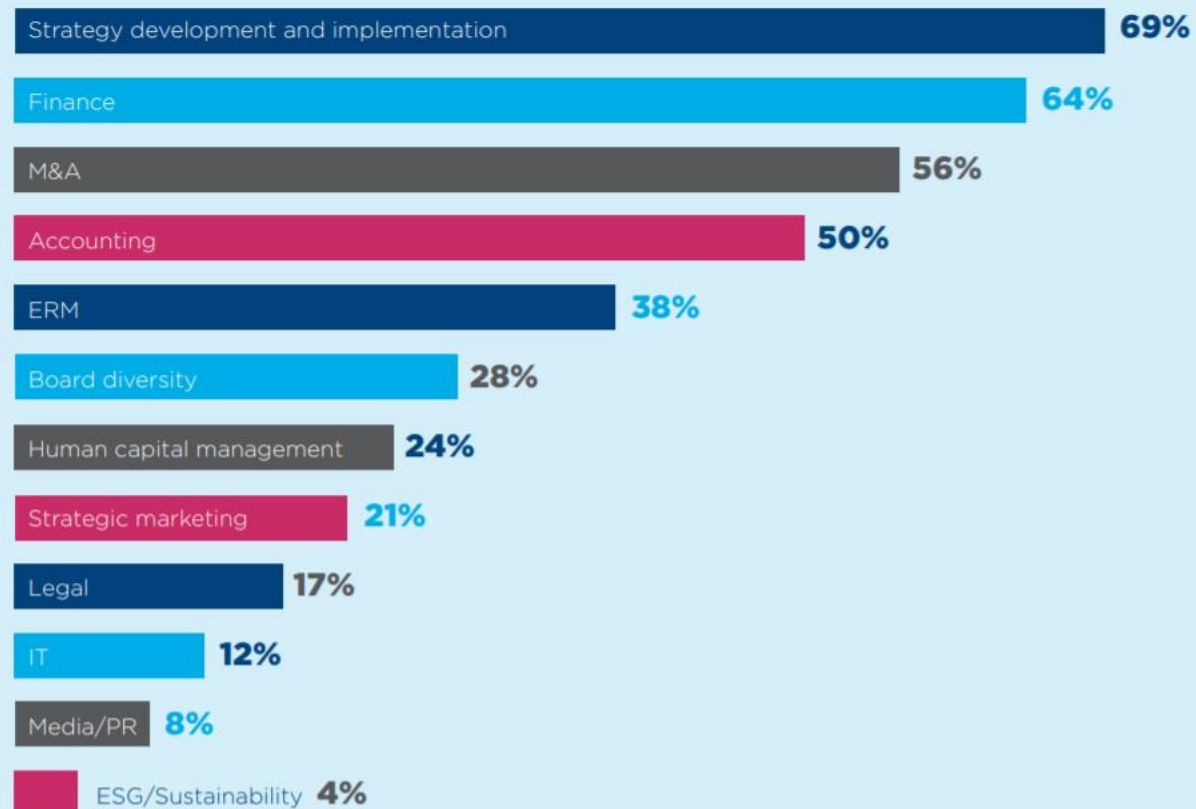
Half of directors say their company has a corporate social responsibility policy in place, with an additional 10 percent saying they have one in the works.

QUAIS HABILIDADES OU CONHECIMENTO VOCÊ CONVIDARIA PARA PROVER *INSIGHTS* ÀS REUNIÕES DO CONSELHO?

WHERE'S THE TECH?

Which of the following skills or knowledge areas do you personally bring to the boardroom?

(Respondents were asked to select all that apply.)



- 63 percent said their board has at least one member with the technical skills to engage in a meaningful discussion with senior information security
- Cybersecurity and Disruptive innovations remain the two main issues that directors told us would be on the agenda if they could bring a panel of experts to their boardroom to provide insights

WHAT BOARD THINKS SURVEY 2018

THE ROI OF SOCIAL RESPONSIBILITY

What benefits did your company's CSR policy bring?

(Respondents were asked to select all that apply.)



Fonte: <https://www.spencerstuart.com>

“**Institutional investors** have now begun to shift their focus to the social involvement of corporations. **And increasingly, the public is demanding** it as well”.

O Futuro das áreas de Controle

Hoje

Curto prazo

Próximos anos

Fundamental



Compliance clássica e tradicional

Modernização



Analytics

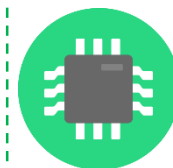


Integração



Estratégica

Criação de Valor



Robótica



Talentos



ROI e
Criação de
valor



Analytics
Preditiva

Obrigado

Felipe Dal Belo

felipedalbelo@yahoo.com.br

+55 11 96401-1232