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Strategies of Digital Transformation in the Insurance Industry: Challenges & Opportunities

Eighth International Aqaba Conference

Ibraheem Tarawneh, PhD
Pi Square Consulting, LLC

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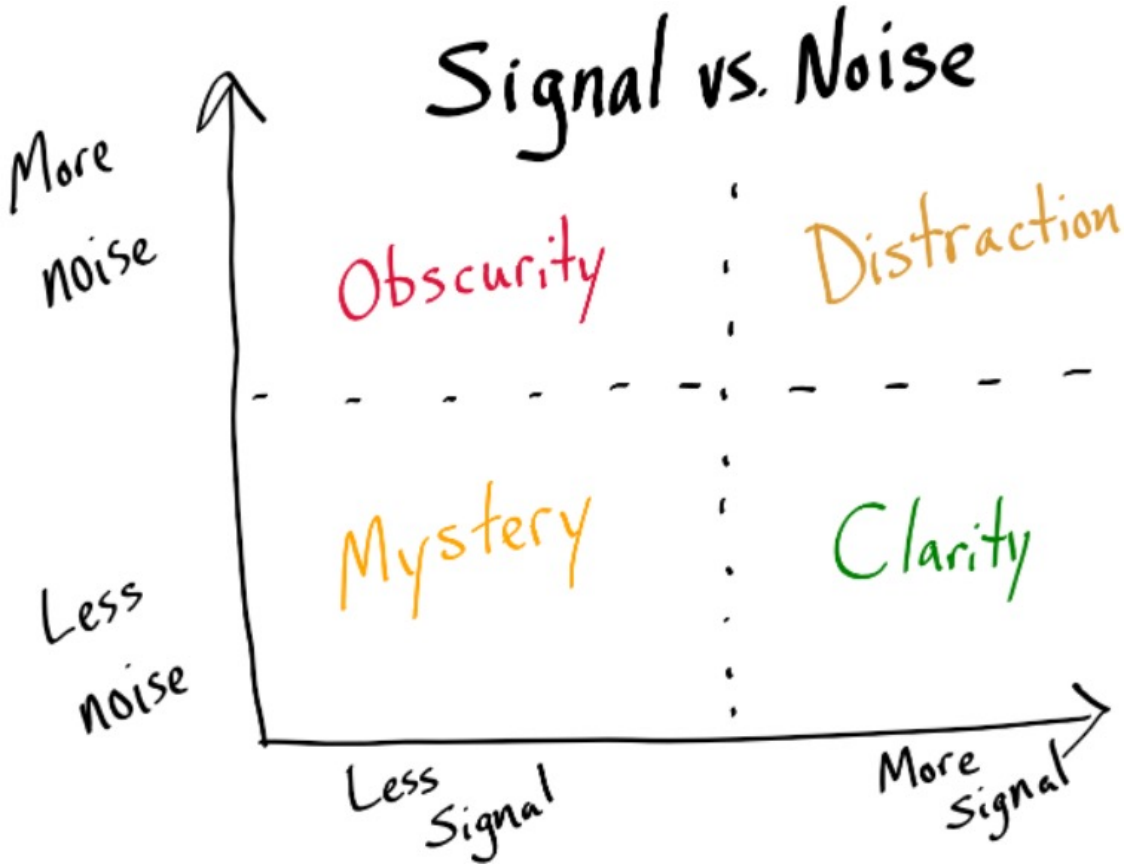
Digital transformation

- There is a lot of information and talk
- Beware of the noise, focus on the signal
- “Nature is pleased with simplicity,” Isaac Newton

Signal vs. noise in software development



Digital transformation

- Digital transformation is the process of using digital technologies to create new, or modify existing business processes; domains and culture, and customer experiences to meet changing business and market requirements.
- It is a reimagination of doing business

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Digital transformation

- It is explained as incorporating digital technology into all business areas
- The result is a fundamental change in how businesses function and interact with customers
- It is a radical rethinking of how an organization uses technology in conjunction with processes and people to change business performance

Types of digital transformation

1. Process transformation
   - Ordering food from restaurants now vs. in the past
2. Business model transformation
   - Video and music distribution: Netflix, Apple's iTunes
1. Domain transformation
   - Amazon Web Services

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Types of digital transformation

4. Cultural/organizational transformation

- A redefining of organization mindsets, processes, talent, and capabilities for the digital world
- Flexible workflows
- Decentralized decision-making process
- A bias toward testing and learning
- Greater reliance on different business ecosystems

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Digital transformation in the insurance industry

Products

- Semi/autonomous vehicles from Google, Tesla, Volvo and Uber
- New forms of coverage: Cybersecurity

Distribution

- Policyholders increasingly demand digital-first disribution models in personal and small commercial lines

Marketing

- Evolving consumer behavior is threatening traditional growth levers such as TV advertising
- Mobile and online channels

Service

- Consumers expect personalized, self-directed interactions with companies via any device at any hour

Pricing

- Rich customer data, telematics, and enhanced computing power is opening the door to usage- and behavior-based pricing

Claims

- Automation, analytics, and consumer preferences are transforming claims processes
- Fraud detection
- Cutting loss-adjustment costs

Digital transformation in the insurance industry

Advances in technology & computing are disrupting every aspect of the insurance industry

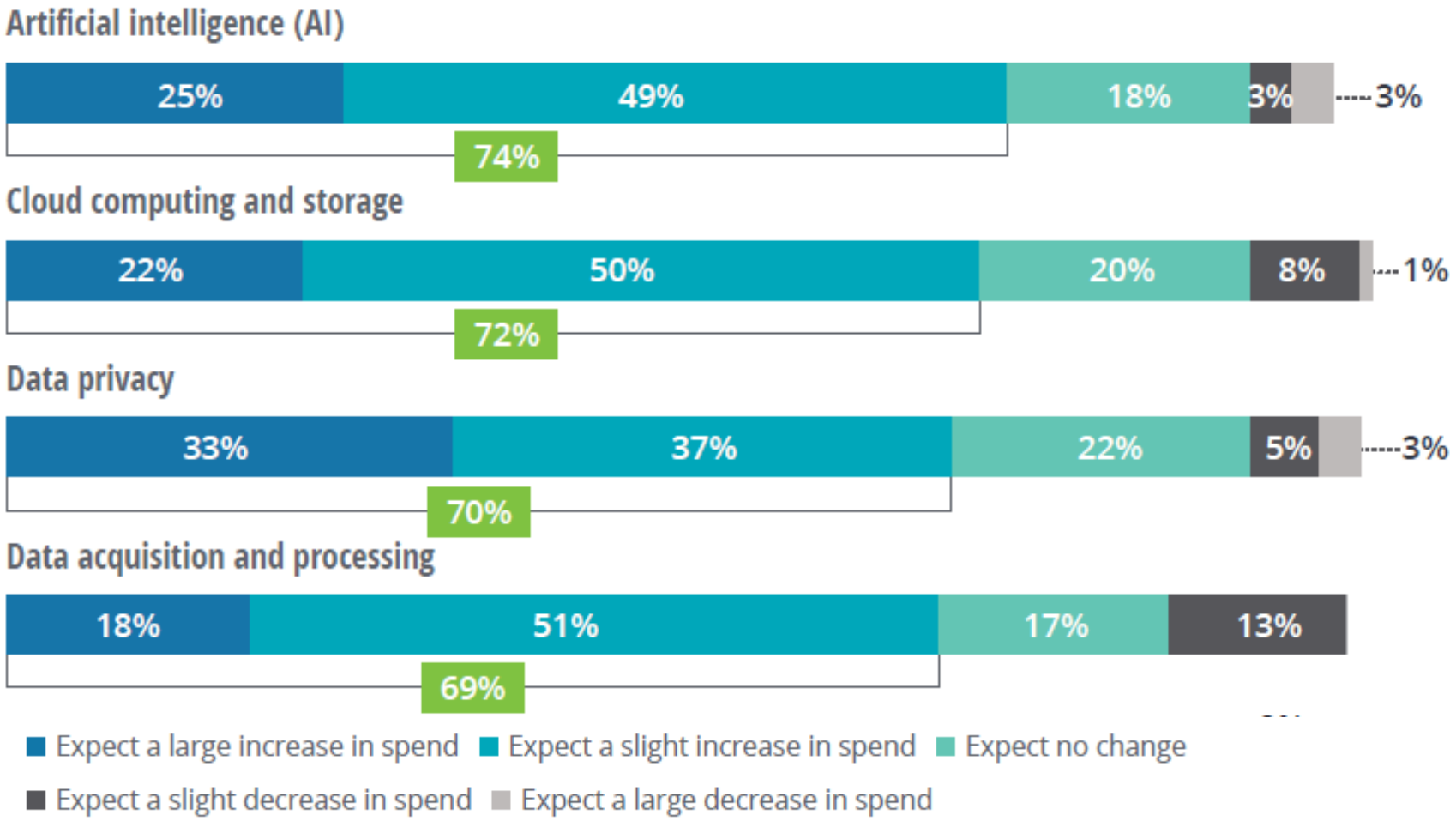
Example: Auto insurance

	Product	Marketing	Underwriting/ pricing	Distribution	Claims	Service
Trend	Product becomes more personalized and usage based	Digital drives more effective marketing via better target-ing and conversion	Availability of new data drives the next S-curve in pricing accuracy	Policies bound digitally become the norm (eg, 50% of auto policies)	Claims adjustment done digitally via integration with connected car sensors	Higher portion of service transactions completed digitally (online, mobile, social)
Examples from today	• Metromile insures ride-sharing drivers (eg, reaching ~150,000 Uber drivers)	• >65% of consumers get auto quotes online; 40% on mobile • 65% of European insurers plan to pro-fessionalize their online marketing	• Select carriers' programs have predict-ed rise in claims frequency and severity as car usage rose post-recession	• Direct channel growing at 2x rate of other channels • 70% of European insurers plan to install multiaccess training program for their physical sales channel	• Guidewire claims platform is becoming the industry standard	• +50% of service transactions completed digitally at leading carriers

Source: McKinsey Global Institute

Digital transformation in the insurance industry

Emerging technologies where survey respondents expect increasing spending the most in 2022



Source: Deloitte Center for Financial Services 2022 Insurance Outlook Survey.

Digital transformation in the insurance industry

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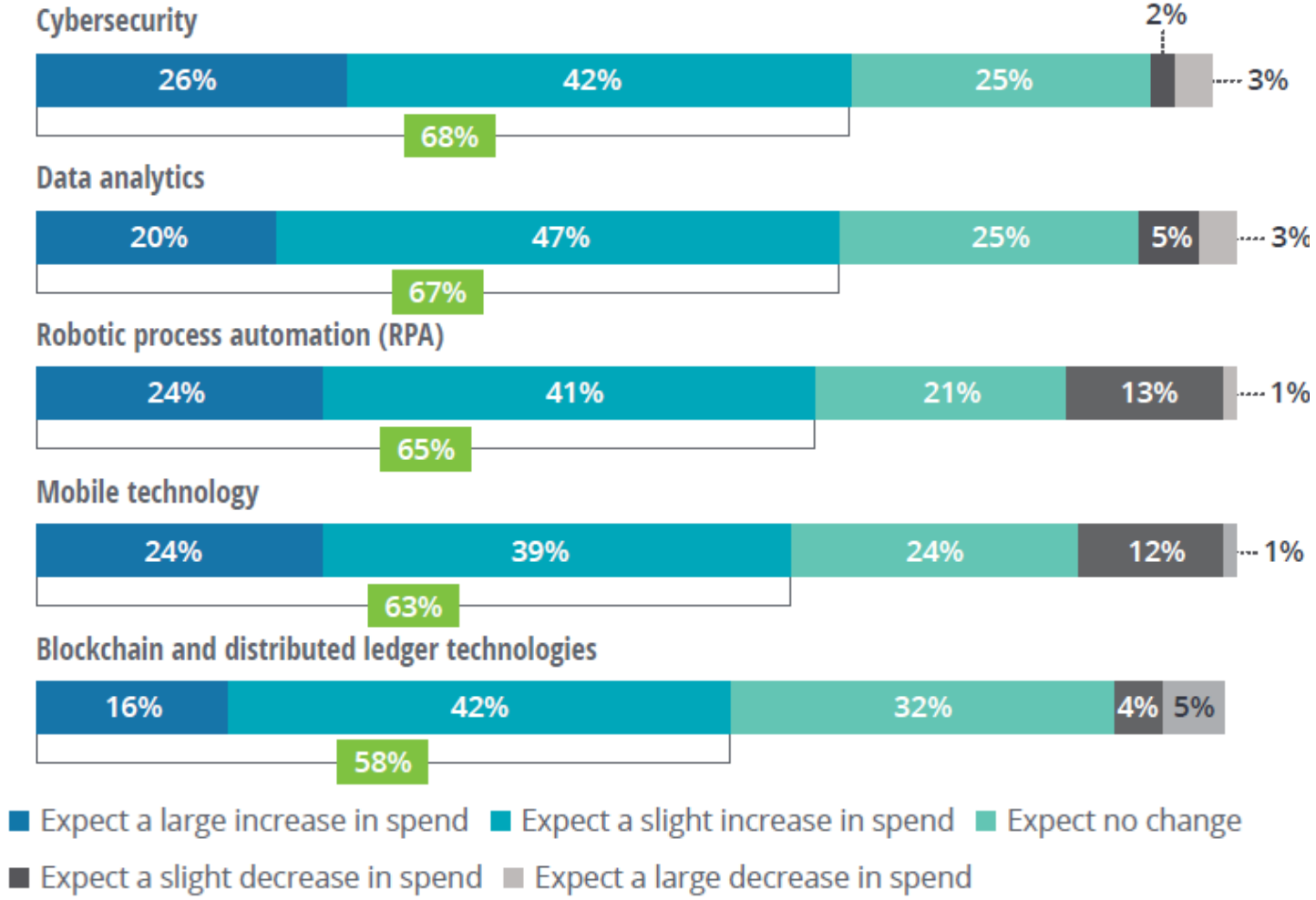

Source: Deloitte Center for Financial Services 2022 Insurance Outlook Survey.

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Digital transformation in the insurance industry

At the core: All digitally driven solutions boil down to data acquisition, analyses, and utilization.

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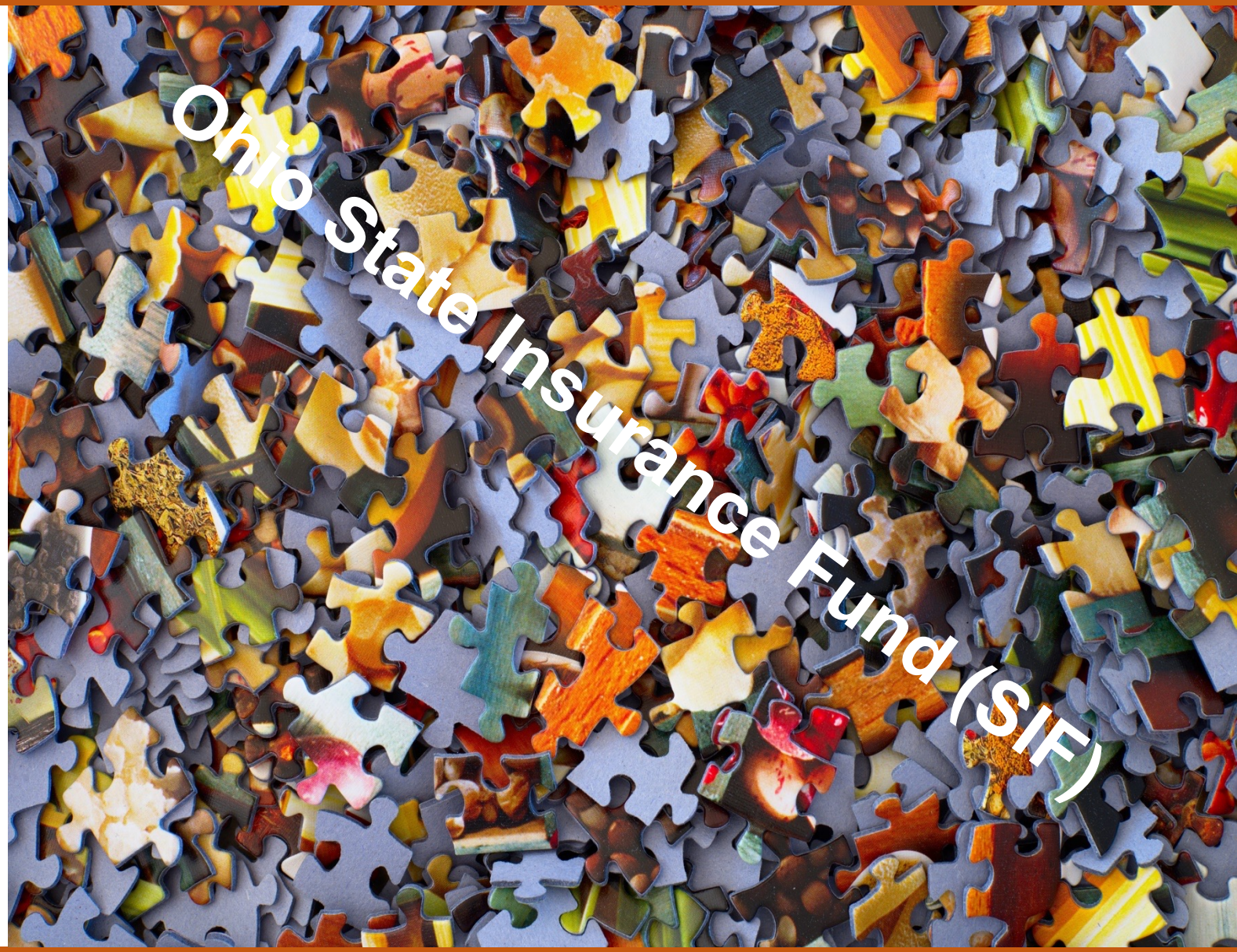
Uncharted journey

- Ohio is the 8th largest state
- Ohio Workers' Compensation State Insurance Fund (SIF)
  - 245,000+ policies
  - 120,000+ claims of injury
  - 10,000+ new policies
  - $2.0+ billion premiums
  - $29+ billion



Biggest challenge

- Ohio is the seventh most expensive state among the 50 states in workers' compensation insurance cost in the US
- Ohio becoming uncompetitive in bringing investments and job creation

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Solution

Reduce cost of WC insurance in Ohio to become competitive for bringing investments and job creation

- Cut down benefits to injured workers? **BIG NO.**
- Cut down losses
  - Reduce frequency and severity of accidents and injuries

SIF risk management

Variety of risk management programs and services:

- Loss prevention and control occupational safety and health consulting and training
- Costly operations
- Costly premium discounts and rebates

SIF risk management

Variety of risk management programs and services:

- Impact unknown
- No objective measurement and evaluation tools
- Competing priorities and shortage of resources, especially technology

SIF risk management

- Build a system for measurement and evaluation to verify/show impact
- Evaluate existing risk management programs
  - Fix/modify
  - Phase out
  - Introduce new programs
- Reduce cost of operations and programs

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Data driven decision making

Start with simple questions:

- What is it we are trying to accomplish?
- What data elements do we need?
  - Which data elements are not/available internally?
  - Which data elements we can start collecting?
  - Which data elements do we need to acquire and how much is the cost?
  - How reliable is that data we have or will acquire? Garbage in, garbage out.
  - How to analyze it and who will analyze it?
  - Who can we partner with?
- Always beware of the noise, focus on the signal

In the meantime:
Do something with what you have.
Don't stand still.

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Data driven decision making

Challenge/opportunity #1:
At SIF, we have an ocean of data: Noise vs. signal

Challenge/opportunity #2:
Most of available data is for actuarial & pricing

Overarching challenge:
- Public entity
- Politics
- Risk avoidance
- Leadership Support

Challenge/opportunity #3:
Data is misused and misanalysed by nonexperts

Challenge/opportunity #4:
Data storage, exchange security, cybersecurity

Challenge/opportunity #5:
We need data from external sources

Challenge/opportunity #6:
Lack of talent for handling and analyzing big data

Challenge/opportunity #7:
Finding partners

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Dealing with the challenges

Handle politics and cultivate leadership support across the organization

Seek out partners with similar goals and needed data and expertise: NIOSH, BLS, ODJFS

Switch resources and build expertise and talent from within

Start with low hanging fruit
Introduce incremental changes/successes

Always show reductions in cost, improved ROI and customer satisfaction

Show that technology will allow you to do more with less

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Digital transformation results

Largest loss prevention and control database in the US	Streamlined operations and programs	Advanced online and blended learning and training programing	Effective risk mgmt programs
Targeted interventions	Online effective communications	High customer satisfaction	Lower cost High ROI

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How digital transformation paid off?

- Built the largest WC loss prevention and control of its kind in the US
- Expanded the reach and impact of the risk management programs and services
- The number of claims of workplace injuries decreased by 19.4%, from 105,568 claims in 2010 to 85,136 claims in 2018, despite an 8.5% increase in Ohio's workforce over the same period.

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How digital transformation paid off?

- Between 2010 and 2018, the injury rate per 100 full time workers in Ohio's workforce decreased from 3.6 to 2.8, almost 1.5 times the rate of decrease in the national injury rate in the United States.
- The significant reduction in the frequency and severity of injuries led to reducing the cost of workers' compensation insurance in Ohio by 30% (lowest in 40 years) to become among the lowest compared to other states.
- WC cost in Ohio became among the lowest ten states among 50 states

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Digital transformation: Where to start?

- Challenge the status quo
- Leadership commitment
- Alignment with overall strategic plan for the organization
- Cultivate support from employees
- No matter what the problem is, the solution and decision-making regarding it boils down to data
- Start out with low hanging fruit and addressing pain points in relation to running operations, business processes, and managing customer interactions
- Benchmark, learn from your competitors

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Digital transformation: Moving along

- Digital transformation/innovation workgroup
- Digital transformation/innovation labs
- Provide time and space to those leading digital transformation
- Business and IT representation
- Always prioritize projects and define specific and measurable goals
- Ongoing operational problems and systems update will always compete for resources, don’t make them distract from innovation
- Build governance structure for prioritizing projects with objective evaluation process

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Digital transformation: Moving along

- Utilize agile approach to managing digital transformation projects
- Seek out partners and advisors
- Keep learning
- Develop expertise from within
- Recruit talent
- With every digital transformation project develop and execute:
  - A stakeholders' communications plan
  - A change management plan
  - A training plan for employees

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Digital transformation: The evolving future

- Big data and advanced analytics
- Telematics
- Artificial intelligence (AI)
- Cloud computing
- Legacy systems
- Cybersecurity
- Ethics and data privacy

Digital transformation: The evolving future

Six promising types of artificial intelligence (AI) technology

Text analytics and natural language processing (NLP)

Automated process of translating large volumes of unstructured text into quantitative data to uncover insights, trends, and patterns

Pattern detection

Classification of data based on knowledge already gained or on statistical information extracted from patterns and/or their representation

Recommendation engines

Information filtering system that seeks to predict the "rating" or "preference" a customer would give to a product or tariff

Conversational services

Software application used to conduct an online chat conversation via text or text-to-speech, in lieu of providing direct contact with a live human agent

Speech recognition

Technologies that enable the recognition and translation of spoken language into text by computers

Image and video analysis

Technology that decomposes images into regions with different characteristics and extracts useful information

Source: PWC Strategy and Analysis.