Trust and responsibility in the age of AI

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AI unlocks new value for businesses

$15.7T

Economic value to be unlocked by 2030, driven by AI

How AI pioneers see value

- **Predict** and shape future outcomes
- **Support** people to do higher value work
- **Automate** decisions, processes, experiences
- **Reimagine** new business models

Source: PwC, “AI to drive GDP gains of $15.7 trillion with productivity, personalization improvements,” 2017
Thousands of enterprises are putting AI to work with Watson

- Achieved a 40% call deflection rate with virtual agents
- Surface hidden insights to optimize fantasy football outcomes
- Intelligently provides info on an array of offerings
- Visually categorize damage & instantly issues quote
- AI-powered advertising engagement
- Better predict outcomes in sepsis patients
- Automate production line quality management processes, reduce defect rates, and save costs

- Draft high-quality litigation work in minutes
- Improve efficiency of tax specialists to provide services to more clients.
- Cognitive car manual explaining increased vehicle complexity
- Marketing analytics with open-source technologies and highly sensitive banking data
- Automate production line quality management processes, reduce defect rates, and save costs
The AI ladder
A prescriptive approach to accelerating the journey to AI

Collect - Make data simple and accessible
Organize - Create a business-ready analytics foundation
Analyze - Build and scale AI with trust & transparency
Infuse - Operationalize AI throughout the enterprise

Data of every type, regardless of where it lives

Modernize
Unlock the value of data for an AI and multicloud world

One platform, any cloud
Operationalize your AI

You shouldn’t have to change your business to work with AI. AI needs to fit seamlessly with your existing business processes.

With Watson OpenScale, it does.
Principles for trust and transparency

- The purpose of AI is to augment human intelligence
- Data and insights belong to their creator
- AI systems must be transparent & explainable

**Pillars of trust in AI**

- Fairness
- Explainability
- Adversarial robustness
- Transparency & traceability
Systems need to be trained to think like a human - which of these is an apple?
We must move from perceived trust to establishing technical trust

In KPMG’s 2017 CEO Outlook survey, 61% of CEOs believe that building customer trust is a top priority.

And 92% of C-suite executives worry about the impact to reputation due to trust in data.
How do I address the regulatory requirements and other needs from business?

An insurer should not use an **external data source**, **algorithm** or **predictive model** for underwriting or rating purposes unless the insurer can establish that the data source does not use and is not based in any way on race, color, creed, national origin, status as a victim of domestic violence, past lawful travel, or sexual orientation in any manner, or any other **protected class**.

The **failure** to adequately disclose the **material elements** of an accelerated or **algorithmic** underwriting process, and the external data sources upon which it relies, to a consumer may constitute an **unfair trade** practice under Insurance Law Article 24.
Addressing trust imperatives across the AI lifecycle

**Resiliency**
- Continuous protection & governance of feedback data and model metrics
- Evaluation and testing of models for adversarial attacks and security testing

**Fairness**
- Need for design – time evaluation of bias and imbalance in data
- Ensure use of only allowed features and no proxies

**Integrity**
- Understanding provenance / lineage of data, features, models etc. incl actions.
- Continuous monitoring of models for metrics and concept drift

**Explainability**
- Explainability of model decisions for business users and decision subjects
- Understanding model change log, data used and evidence profiles
Continuous monitoring of AI - How to achieve real time insights
Thank you

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