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Data Analytics Assignment 1

Case Study: Arizona Department of Child Safety (DCS) simplifies processes with genAI

Problem
The case study presents a solid and credible business case for using generative AI in a public sector environment. The main problem is that manual processes slowed decision-making, increased administrative burden, and took away workers' time from families. Since this problem involves people who work with child safety and preventing trauma, the motivation for automation and decision support is well justified.

Area of Application
The primary application area is child welfare case management. The AI solutions were applied to central registry classification, internal policy retrieval and compliance, DevOps integration, and administrative processing.

Approach and Methods
Arizona DCS worked with IBM Consulting and used a phased, strategic transformation approach. It was tailored to meet demands of DCS operations. Using IBM Consulting Advantage for Cloud Transformation helped boost accuracy and informed decisions. This helped reduce risk at each step. The solutions focused on classification, summarization, retrieval, and workflow automation.

Tools and Technologies
The technologies they used included Microsoft Azure OpenAI, TachyonGPT, Microsoft Azure, Microsoft Power Platform AI Builder, Gherkin syntax, and IBM Consulting Advantage for Cloud Transformation. Microsoft Azure OpenAI was used for classifying allegations. TachyonGPT from Neudesic was used to generate and refine features, user stories, acceptance criteria and test cases. The cloud infrastructure was Microsoft Azure. AI Builder in Microsoft Power Platform was used for document processing. Gherkin syntax was utilized for user stories and acceptance criteria. Lastly, IBM Consulting Advantage for Cloud Transformation was used for support materials and internal workflows.

Results and Benefits
There were a lot of quantitative and qualitative results from this implementation. In terms of quantitative results, there was a 500% decrease in document upload time, and a 40% increase in productivity. Some qualitative benefits were better-informed decisions, improved compliance, and more time for caseworkers to engage with families.

Assessment

The case study included specific metrics and application of GenAI for improvements in a work setting. However, it relies on percent improvements with limited detail on how they evaluated these statistics. There was also limited detail to long-term impacts and little discussion of data governance. Overall, the case study shows a strong use of GenAI in a sensitive public-sector environment.