

Making AI a Reality for Your Firm: Where to Start, How to Use It, and What Comes Next Perry Currin & Tyler Kubsch | August 7, 2024

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Our Speakers



Perry Currin Construction Industry Lead

About

Perry works with clients to develop the technology strategy for information management and AI implementation through process improvements, application development, reporting, and analytics.



Tyler Kubsch

Business Development Director

About

Tyler helps construction firms with the adoption of the Microsoft solution stack, including data and cloud strategy, BI, ERP, CRM, and project operations. He advises on process improvement, change management, and ongoing support of their Microsoft solutions.





Agenda

- Introductions
- Where do you start? a well-defined data strategy
- How AI and low-code development can benefit your firm
- Construction-specific use cases that boost efficiencies and save time
 - Self-service GPT AI
 - Resource management tool
 - Digital safety site visit report
 - Identifying objects and handwriting
- Next steps: How to get started with AI today

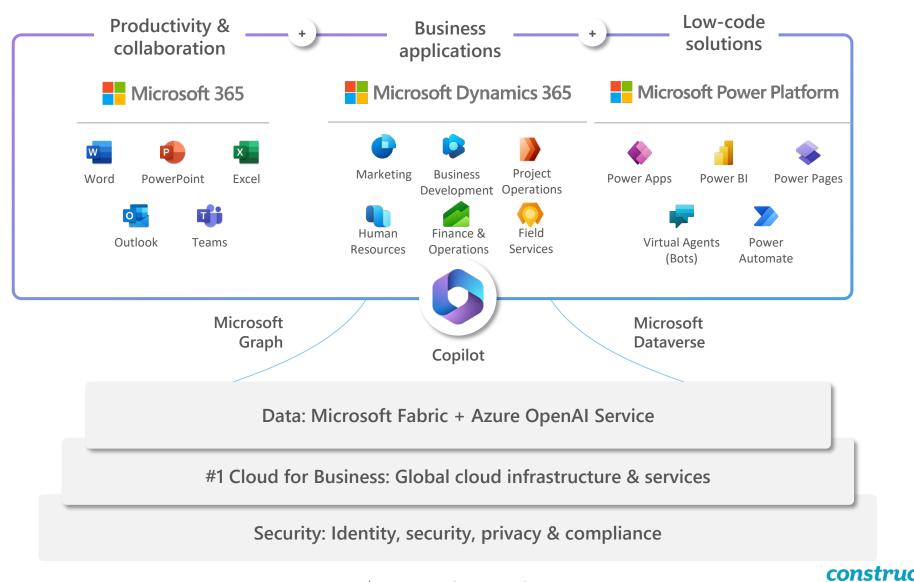


Introduction to HSO





Microsoft's Strategy in the Construction Industry



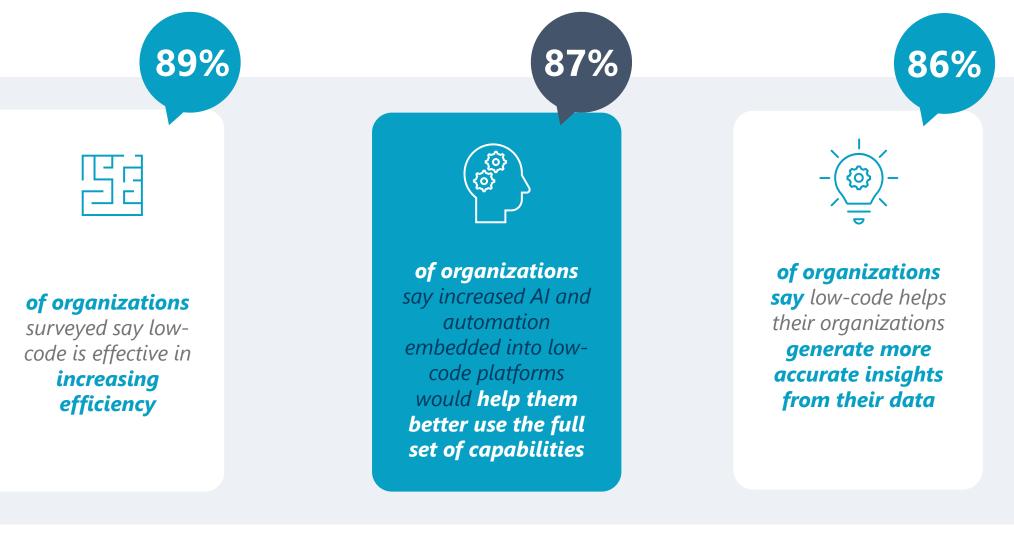
Before We Dive In...

- How many of you have a plan for AI adoption?
- Have you determined how AI can benefit your business today?
- Have you started implementing AI?



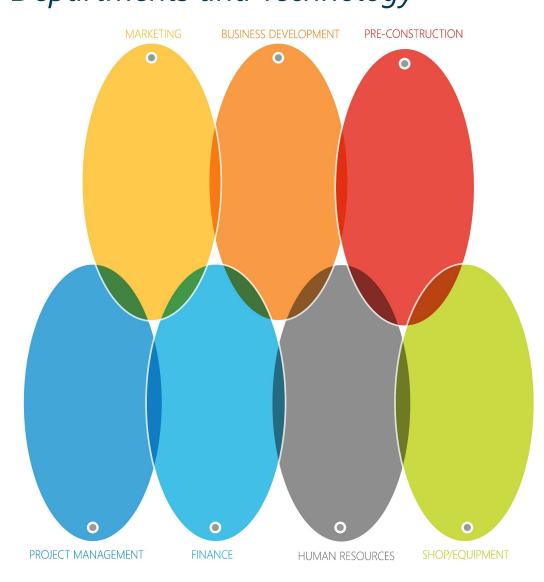


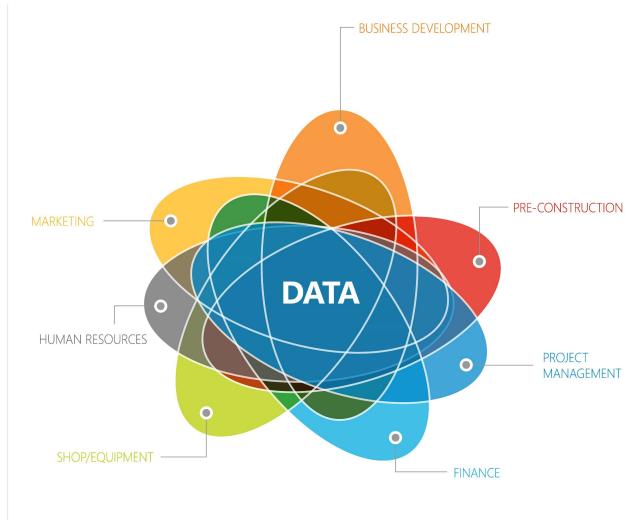
Disruptive Times in Human Innovation





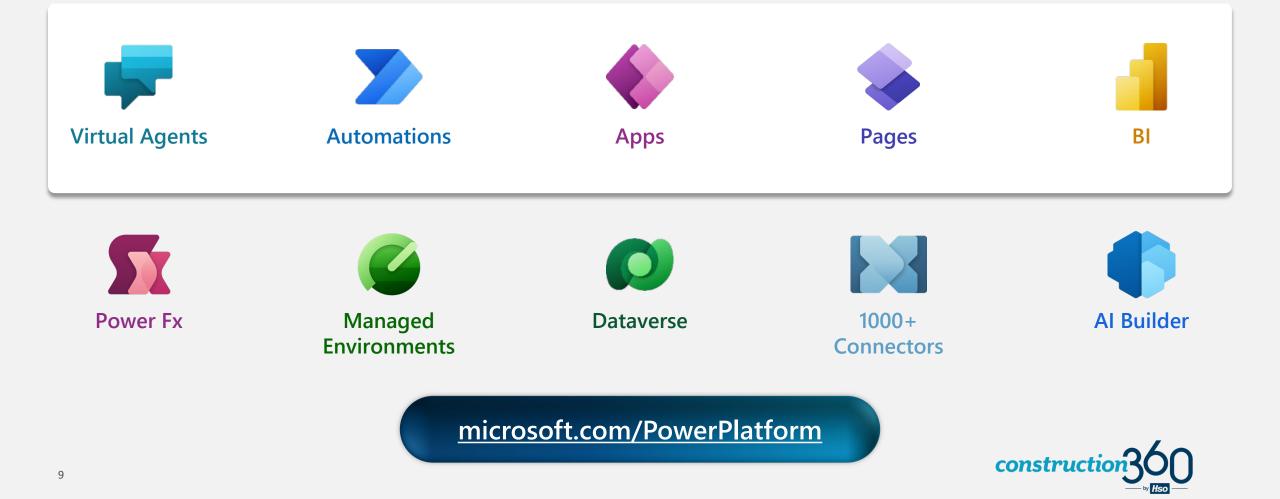
Information Life Cycle Management – THE DATA *Departments and Technology*





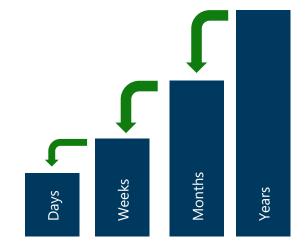


Microsoft Power Platform Al Copilot Studio Enabled



Why Power Platform?

Deliver Projects Faster

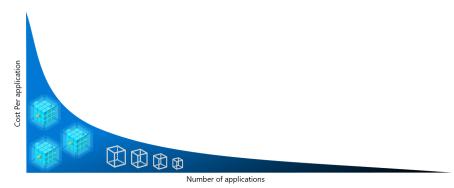


- Projects that historically may take years to complete commonly finish in months
- Months long projects reduce to weeks and weeks turn into days

• Each application you build on the platform costs less

- This is an incentive to build and deploy applications on the platform more quickly – the faster you go, the more you benefit
- Drives cost out, drives risk out, drives employee experience up

Drive Cost per App Near Zero





AI Data Utilization Approaches





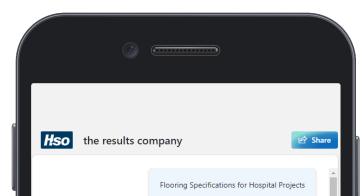
Demo 1a: Search employee and project experience

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	00036.01	1010 Midtown	\$2,545,000.00	Atlanta	GA	General Construction	Georgia State University	Aaron C	
	60012	1201 Sierra Way Library	\$4,311,250.00	Atlanta		General Construction	Acme Corp	Aaron C	/Projects where Market is Higher Education and Total Contract Value > \$1000000
	# 78423-47	1st Phase - Hospital	\$30,000.00	Atlanta	MT	General Construction	Architecture Design Colla	Cole Mc	
	P-456212	3387 Hayward Avenue Gate & Controller	\$175,000.00	Wilkes Ba	PA	General Construction	Dallas City Hall Water/Ad	Scot Fai	l found 15 projects in Higher Education w Total Contract Value > \$1,000,000.
	P-125454	350 Fifth Avenue Office Tower	\$2.500.000.00	Casper	WY	General Construction	Dla + Architecture & Inter	Emma J	Theme park construction
	800-001	Adaptive reuse of former industrial sites	\$2.258.500.00	Montgo		General Construction	Anadarko Finance Compa		Civic center construction
	800-002	Adaptive reuse of historical buildings	\$1,263,750.00	Little Rock		Environmental	Architecture Design Colla		Develop an automated parking system for a busy urban area
	800-003	Affordable housing development	\$2,919,750.00	Greenville		General Construction	Henry Schein, Inc.		Water treatment plant construction
	500-006	Airport runway construction	\$2,661,000.00	Baltimore		Environmental	Shire Pharmaceuticals		Georgia State Student Housing Project
	800-004	Airport runway expansion project	\$2,977,250.00	Raleigh		Design	SQLA Inc		Show all on a page
	800-005	Airport terminal renovation	\$2,017,000.00	Madison		Materials Engineering	Cerberus Real Estate Capit	Evan Sa	Al-generated content may be incorrect 👌 🖓
	800-006	Amusement park construction and renova	\$2,862,250.00	Kansas City		General Construction	ANF & Assocs		
	2018-5654	Anadarko Corporate Office	\$13,455,000.00	Houston	MT	General Construction	Apache Corporation	Cole Mc	View Prom
	# 452-66	Anvil Arena Parking Structure					Georgia State University	Mark Be	Ask a question about the data in the app. U
	500-017	Aquarium construction	\$3,546,500.00	Albany		Environmental	Blue Print Service Co Inc		/ to reference data 0/500
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What You Will See

- An AI-enabled virtual agent that helps employees find answers to questions they have about the firm's project and employee experience
- No CRM access accessing the database using Copilot
- Takes you back to the CRM if access is enabled





The flooring specifications for the Green Level Animal Hospital project include detailed requirements for various types of flooring materials and their installation processes. Here are the key points:

1. General Requirements:

- All floor finishes must comply with NCBC Sections 804 and 805, including flame spread requirements. Flooring should be manufactured, fabricated, and installed to performance criteria certified by the manufacturer without defects, damage, or failure ¹.
- Fire performance characteristics should include a critical radiant flux of 0.45 watts per square cm or greater (Class I) as per ASTM E 648 (NFPA 253) and a maximum specific optical density of 450 or less for smoke generation as per ASTM E 662 (NFPA 258)¹.

2. Vinyl Tile Flooring:

- Manufacturers: Armstrong or approved equal¹.
- Type: Vinyl Tile, ASTM F 1700, Class 1 Monolithic, Type A Smooth Surface ¹.

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- Thickness: 1/8 inch ¹.
- Size: 36 by 36 inches¹.

Auxiliany Materiale: Edge string and

Type a new question...

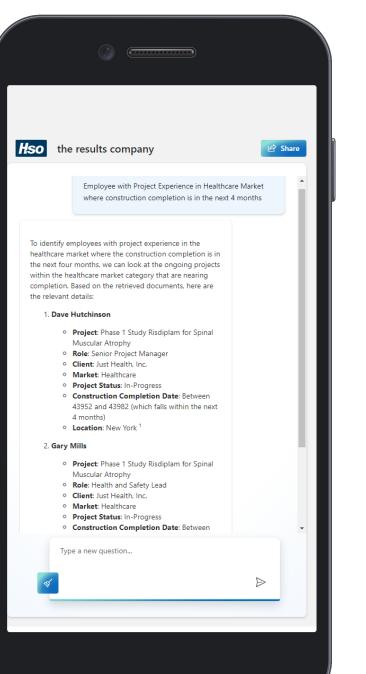
Demo 1b. Navigate Design Specifications

What You Will See

A custom application with GPT capabilities that:

- Searches hundreds of pages of specifications
- Provides answers to specific questions about design/construction requirements
- Offers reference to the original document(s) where the data was obtained





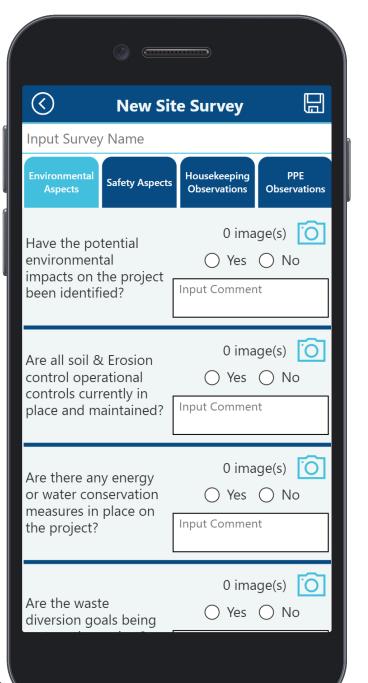
Demo 2: Resource Management

What You Will See

A custom application to lookup available staffing resources:

- Works on desktop as well as mobile (in the field)
- The data can be accessed outside of the ERP/CRM systems
- Search employees by multiple criteria (role, seniority, market, geography, availability, etc.)





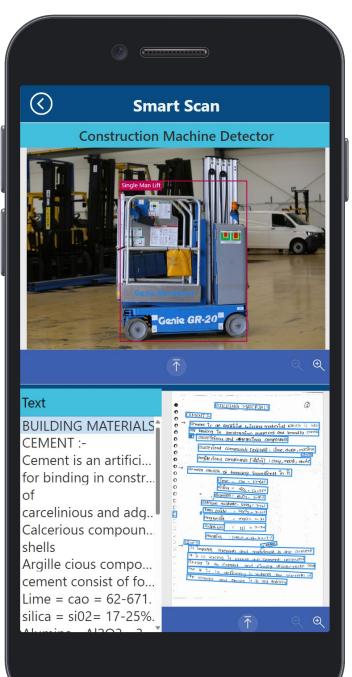
Demo 3: Safety Site Visit Survey

What You Will See

A custom application to easily record different types of site surveys:

- Custom questions and answer format
- Available on mobile/in the field
- Notes fields for comments
- Ability to take multiple pictures/videos if needed





Use Case Example: AI for Identifying Objects & Handwriting

What else is possible?

- Trained AI will learn to identify virtually anything, allowing you to change the user experience and embed this functionality in the applications you design and deploy.
- This example uses images and text.
- Possibilities include recognizing potential safety issues through analysis of on-site photos or videos.







Three

How we can utilize **all of our various data environments** in low-no code and/or Al scenarios to communicate information and experience across the organization.

What Have We Discussed Today?

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One

Generative AI in a self-service environment

and your ability to provide better service to your employees (or your clients) without incurring additional cost

Two

How today's low-code development tools give your firm the power to **develop your own applications**, **mobile or otherwise**. You don't always have to compromise and use out-of-the-box software that might not behave the way you want. One of the best things is your ability to modify the software as you use it – **make it work exactly the way you want**.



How to get there



Q&A and Wrap Up



Any Questions?





Perry Currin Construction Industry Lead pcurrin@hso.com Tyler Kubsch Business Development Director tkubsch@hso.com

