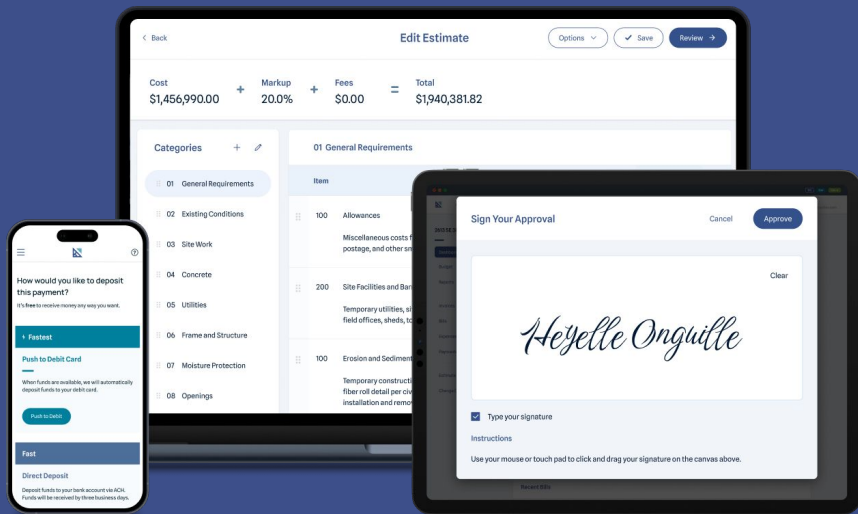




Build Smarter, Win More Jobs: How AI is Transforming Construction Management

Background



KonstructIQ

To empower builders with software that streamlines projects and drives financial performance.



Joy Ghanekar
Chief Product Officer, KonstructIQ

U.S. Bank
talech
Zynga
Yahoo!
Amazon

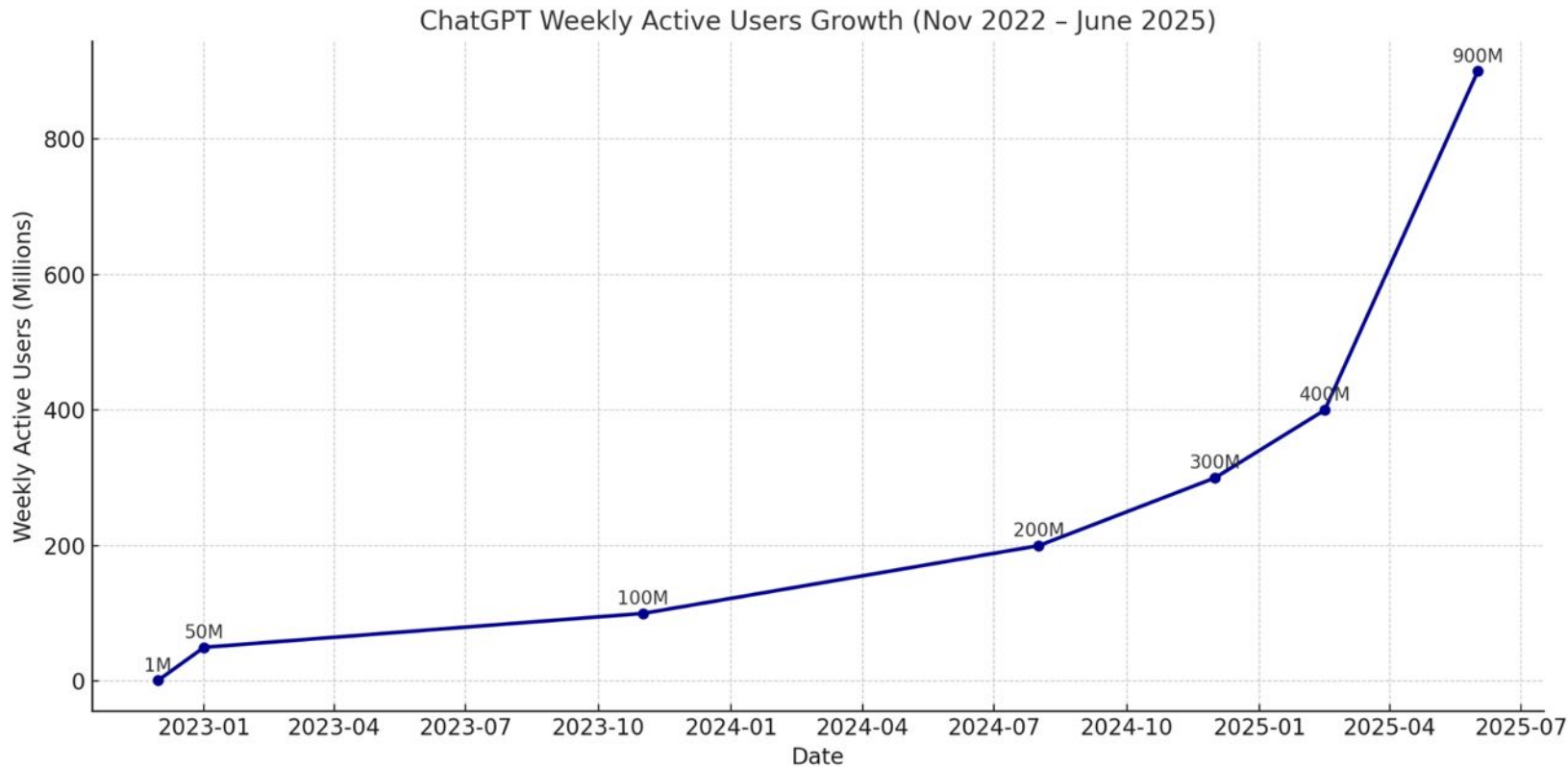


3

"The future is already here – it's just not evenly distributed."

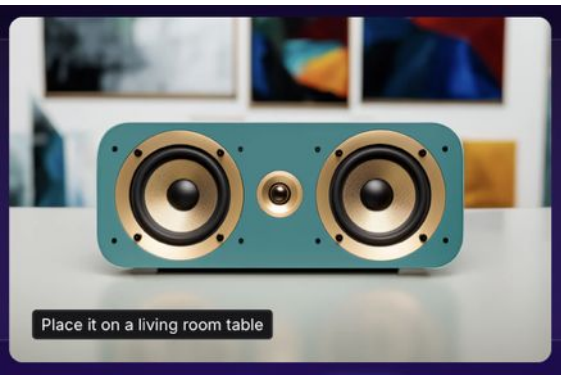
- William Gibson

AI consumer adoption is unlike anything before it

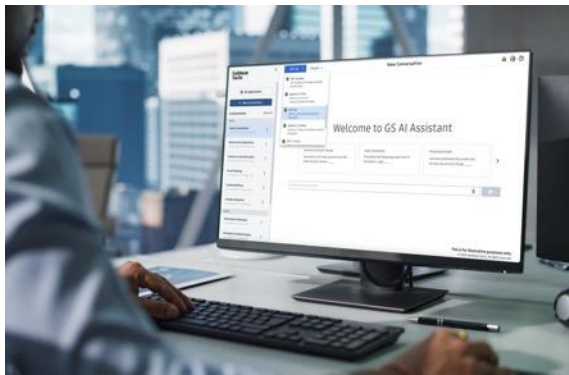


AI is rapidly rewiring every industry around us

E-commerce



Financial Services



Entertainment



Construction is ripe for AI transformation...

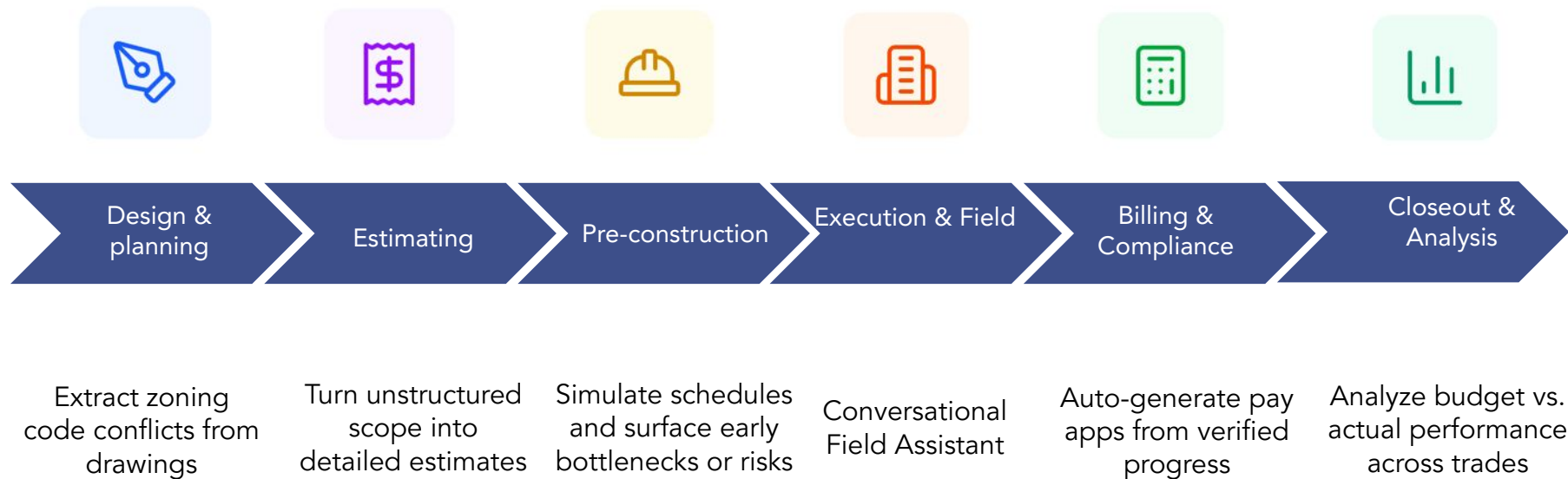
70%

of all construction projects are delayed or above budget

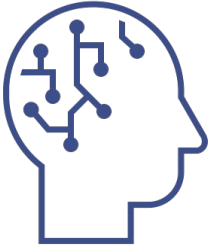
21st

Ranked second last out of all industries in digitization

Where AI Is Already Driving Results in Construction



How AI Turns Construction Data into Decisions



Understand



Analyze



Act

Understand



Natural language search

"Was the kitchen wall approved for removal?"



Image & video Understanding

"Auto-tag photos showing progress on framing"



Speech to text

"Transcribe a walk-and-talk site meeting into a punch list"



Document and data extraction

"Find workers comp policy number for my sub"



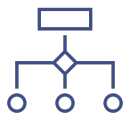
Summarization

"Send a summary of this week's activity"



Anomaly Detection

"Hours logged on a phase that hasn't started yet"



Classification

"Auto-tag invoice line items to cost codes"

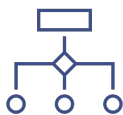


Prediction

"Week 6 cash shortfall due to slow invoice payments"



Multi-modal output (voice, text, image, video)
"Create an executive summary of this proposal"



Trigger Workflows
"Automatically close to-dos based on daily logs"




Suggest and Recommend
"Crew size is too low for this job"

Highlighting 3 use cases

Estimating

Estimate

Estimate No. 8
Created on February 7, 2025



Prepared By: **Top Gun Construction**
demo@topgunconstruction.com
4155551111
123 Main St
Redwood City CA 94063
License number: CSLB License # 1234567-B

For: **Julia Roberts**
demo@julia@konstruct.com
6501111111

Project: **450 Cedar Kitchen Remodel**
Due Date:

Item	Price
01 General	\$9,100
200 Site Facilities and Barriers - Temporary Temporary utilities, sheds, toilet, etc.	\$9,100
02 Existing Conditions	\$31,200
100 Remove cabinets and countertops Removal and disposal of all upper and lower cabinets, existing countertops and backplash.	\$5,200
200 Remove flooring Demolition and disposal of existing kitchen flooring	\$26,000
03 Utilities	\$7,800
100 Utilities - Gas and Electric Allowance to trench and backfill on site and off-site joint trench for gas and electric utilities to meter locations at side of garage per civil plans.	\$7,800

Daily Logs



COI

ACORD CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY. IT DOES NOT ALTER OR CHANGE THE POLICY OR POLICIES. THE COVERAGE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE PROVIDED BY THE POLICY OR POLICIES.

INSURED: **TOP GUN CONSTRUCTION**
TYPE OF WORK: **GENERAL CONTRACTOR**
PROJECT: **450 CEDAR KITCHEN REMODEL**
DATE OF WORK: **02/07/2025**

COVERAGE:

COVERAGE	DESCRIPTION	AMOUNT	EXCLUSIONS
A.1	COMPLETION DEFECTS	\$1,000,000	See Policy for exclusions
A.2	PROPERTY DAMAGE	\$1,000,000	See Policy for exclusions
A.3	PERSONAL AND ADVERTISING INJURY	\$1,000,000	See Policy for exclusions
A.4	PRODUCT COMPLETION DEFECTS	\$1,000,000	See Policy for exclusions
A.5	CONTRACTORS POLLUTION	\$1,000,000	See Policy for exclusions
A.6	COMPLETION DEFECTS	\$1,000,000	See Policy for exclusions
A.7	PROPERTY DAMAGE	\$1,000,000	See Policy for exclusions
A.8	PERSONAL AND ADVERTISING INJURY	\$1,000,000	See Policy for exclusions
A.9	PRODUCT COMPLETION DEFECTS	\$1,000,000	See Policy for exclusions
A.10	CONTRACTORS POLLUTION	\$1,000,000	See Policy for exclusions
A.11	COMPLETION DEFECTS	\$1,000,000	See Policy for exclusions
A.12	PROPERTY DAMAGE	\$1,000,000	See Policy for exclusions
A.13	PERSONAL AND ADVERTISING INJURY	\$1,000,000	See Policy for exclusions
A.14	PRODUCT COMPLETION DEFECTS	\$1,000,000	See Policy for exclusions
A.15	CONTRACTORS POLLUTION	\$1,000,000	See Policy for exclusions
A.16	COMPLETION DEFECTS	\$1,000,000	See Policy for exclusions
A.17	PROPERTY DAMAGE	\$1,000,000	See Policy for exclusions
A.18	PERSONAL AND ADVERTISING INJURY	\$1,000,000	See Policy for exclusions
A.19	PRODUCT COMPLETION DEFECTS	\$1,000,000	See Policy for exclusions
A.20	CONTRACTORS POLLUTION	\$1,000,000	See Policy for exclusions

COI NUMBER: **1234567890**
ISSUANCE DATE: **02/07/2025**
EXPIRATION DATE: **02/07/2026**

ACORD 101 (01/01/20)

Build Estimates in Hours, Not Days

PROJECT NAME		PROJECT LOCATION		START DATE	END DATE
PROJECT MANAGER		ESTIMATE PREPARED BY		PROJECT ID	ESTIMATE ID

BASE PRICE TOTAL	GROSS PROFIT TOTAL	AVERAGE PROFIT MARGIN	TOTAL ESTIMATED EXPENSE
\$12,125.00	\$3,031.25	20.0%	\$16,156.25

Category & Items	Units	Per	Unit Price	Base Price	Markup Amount	Gross Profit	Margin of Profit	Total Expense	Notes
Planning				\$12,125.00		\$3,031.25	20.0%	\$16,156.25	
Admin Fees	240	Hour	\$30.00	\$7,200.00	25.0%	\$1,800.00	20.0%	\$9,000.00	
Engineering	4,500	Sq. Ft.	\$0.75	\$3,375.00	25.0%	\$843.75	20.0%	\$4,218.75	
Financing Costs			\$0.00	\$0.00		\$0.00		\$0.00	
Legal			\$0.00	\$0.00		\$0.00		\$0.00	
Permit - Building	1	Permit	\$1,200.00	\$1,200.00	25.0%	\$300.00	20.0%	\$1,500.00	
Permit - Environmental			\$0.00	\$0.00		\$0.00		\$0.00	
Permit - Zoning			\$0.00	\$0.00		\$0.00		\$0.00	
Plans - Specs			\$0.00	\$0.00		\$0.00		\$0.00	
Review	1	Day	\$350.00	\$350.00	25.0%	\$87.50	20.0%	\$437.50	
Survey			\$0.00	\$0.00		\$0.00		\$0.00	
Site Prep				\$0.00		\$0.00		\$0.00	
Earthwork / Excavation				\$0.00		\$0.00		\$0.00	
Utilities				\$0.00		\$0.00		\$0.00	
Water + Sewer				\$0.00		\$0.00		\$0.00	
Foundation				\$0.00		\$0.00		\$0.00	
Rough Framing				\$0.00		\$0.00		\$0.00	
Windows + Doors (Exterior)				\$0.00		\$0.00		\$0.00	
Finish - Exterior				\$0.00		\$0.00		\$0.00	
Roofing				\$0.00		\$0.00		\$0.00	
Asphalt / Paving				\$0.00		\$0.00		\$0.00	
Porches + Decks				\$0.00		\$0.00		\$0.00	
Insulation + Air Sealing				\$0.00		\$0.00		\$0.00	
Plumbing				\$0.00		\$0.00		\$0.00	
Electrical				\$0.00		\$0.00		\$0.00	
HVAC				\$0.00		\$0.00		\$0.00	
Drywall + Plaster				\$0.00		\$0.00		\$0.00	
Finish - Interior				\$0.00		\$0.00		\$0.00	
Kitchen				\$0.00		\$0.00		\$0.00	
Bath				\$0.00		\$0.00		\$0.00	
Appliances				\$0.00		\$0.00		\$0.00	
Other				\$0.00		\$0.00		\$0.00	
			\$0.00	\$0.00		\$0.00		\$0.00	
			\$0.00	\$0.00		\$0.00		\$0.00	
			\$0.00	\$0.00		\$0.00		\$0.00	

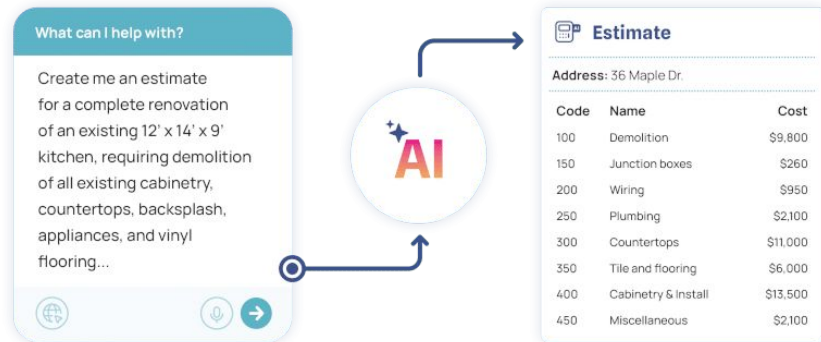
✗ The Problem

- Manual, time-Consuming
- Errors lead to lost profit or blown budgets
- Hard to delegate — requires experience

⚠ Technical Challenges

- Every project is unique
- Customer inputs are vague or incomplete
- Lack of cost breakdown information
- Lack of common structure
- Varying assumptions

Build Estimates in Hours, Not Days



The Solution

- Natural Language Input
- Support in multiple languages
- Localized, Margin-Aware Pricing
- Conversational Adjustments via AI
- Formatted Using Historical Preferences

- Cedar Remodel
- Dashboard
- Budget
- Reports >
- Invoices
- Bills
- Payments
- Estimate
- Change Orders
- Daily Logs
- Timecards

Dashboard

Estimate

Create Estimate with AI

Create from Template or Upload a CSV or Copy from Existing

Client

Forrest Gump

joy+paymentclient1@konstructiq.com

Site

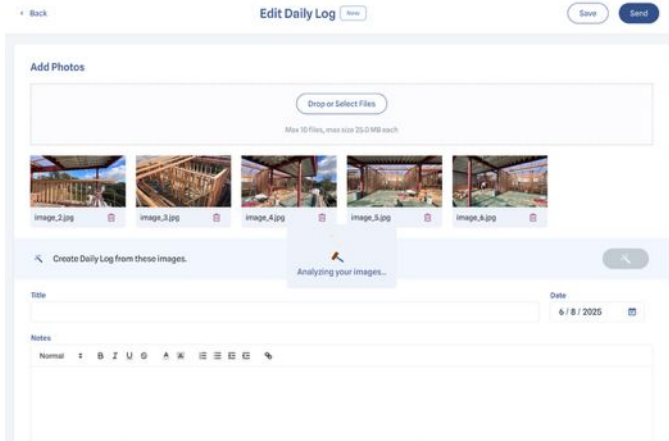


123 Cedar St, Redwood City, CA, 94063-2142

Invoices

Invoice Number	Title	Due Date	Status	Payment Status	Amount
INV-1		Jul 9, 2025	<div>Open</div>	<div><input type="radio"/> Unpaid</div>	\$0.00

Turn Photos and Notes into a Professional Updates



- Detect site progress using image analysis
- Summarize logs, notes, and voice memos into clean updates
- Generate and share daily or weekly reports automatically
- Flag missing data or unusual activity with anomaly detection
- Sync with schedule to highlight delays and sequencing issues

Speed up communication, reduce delays





Stay Ahead of Risk with AI-Tracked Certificates of Insurance

Subcontractors/Vendors					Create
					Upload Download
Business Name	Primary Contact	Email Address	Phone Number	Insurance	
Cast Away Concrete	Mason Stone	demo+sub10@konstr...	(650) 333-1211	Expired	
Heritage Flooring	James Woods	demo+sub8@konstr...	(408) 999-3333	Expired	
Paint Club	Tyler Brush	demo+sub6@konstr...	(408) 333-4444	Expiring soon	
Pied Piper Plumbing	Percy Piper	demo+sub3@konstr...	(415) 555-1116	Active	

- Identify and extract key info from uploaded COIs
- Track expiration dates and required coverage terms
- Send alerts before coverage lapses to stay compliant

Stay compliant, reduce risk

AI isn't perfect. Some things to be aware of...

-  Model Drift & Evolving Behavior
-  Inconsistent Outputs Without Guardrails
-  Garbage In, Garbage Out
-  Struggles with Edge Cases & Complex Workflows

Why can't I just use chatGPT

- "Build an estimate"
- "Summarize these daily logs"
- "Why are we over budget?"

Gemini

OpenAI

ANTHROPIC



CONSTRUCTION SYSTEM OF RECORD

Sales and Estimating

CRM

Estimates

Proposals

Templates

Takeoffs

Bid Management

Cost Catalog

Project Management

Selections

Change Orders

Scheduling

Daily Logs

To-dos

Messaging

Document management

Financials

Invoicing

Bill Payment

Lien Releases

POs

Expense
Management

Financing

Reporting

Staff

Staff Roles and
Permissions

Approval Workflows

Timesheets

Payroll

Partner Management

Client Portal

Subcontractor Portal

Digital Signatures
and Approvals

Compliance Tracking

Integrations





Accounting

Time clock

Payroll

Takeoffs

So where next?

-  Standardize & Digitize Your Core Systems
-  Start with One Use Case That Hurts
-  Treat AI Like an Apprentice, Not an Expert
-  Use Purpose Built Tools in Conjunction with LLMs

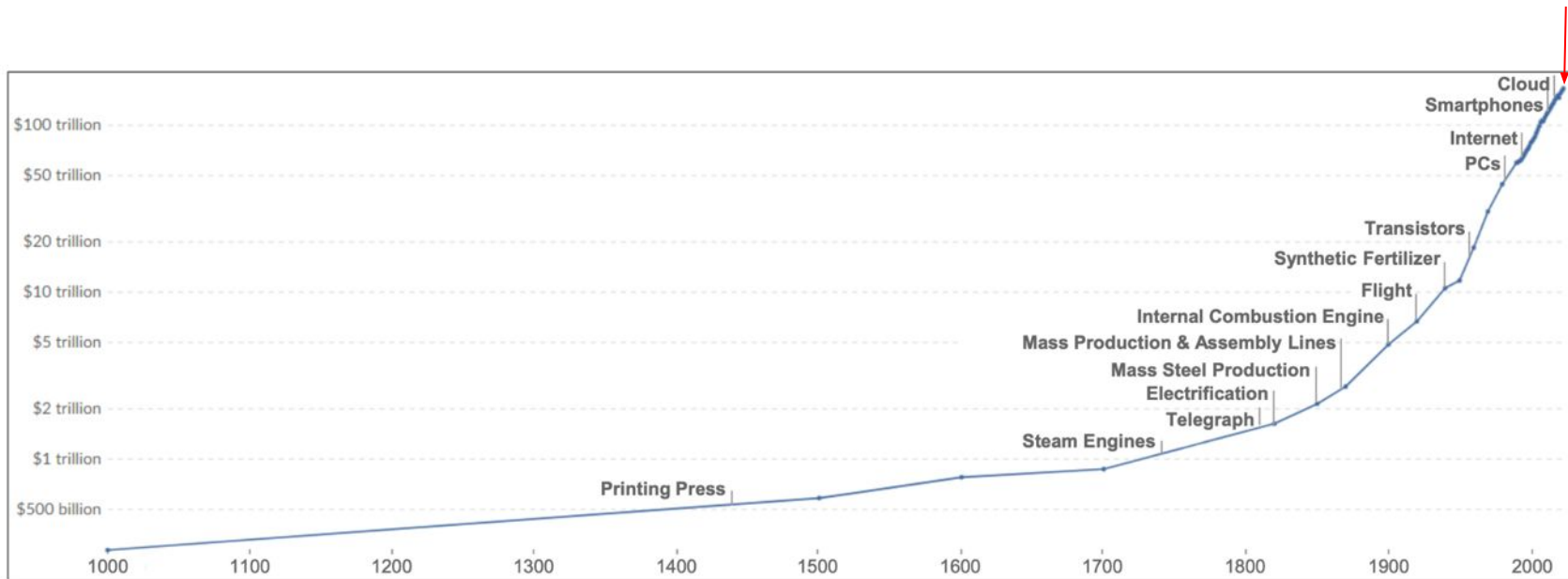


THANK YOU

AI: The next industrial revolution or even bigger?

Global GDP – Last 1,000+ Years, per Maddison Project

You are here



OK, so why can't I just use ChatGPT?

- Write an estimate
 - Summarize a daily log
 - Draft a client message
 - Why are we over budget?
-
- Staff roles, permissions, time tracking
 - Estimates & change orders
 - Invoicing, billing, lien waivers
 - Budget, cost tracking, analytics
 - Payments, banking, payroll, expenses
 - Subcontractor & vendor tracking
 - Scheduling and site logs
 - Catalogs and pricing logs
 - CRM and customer communication



...but construction is messy and complex

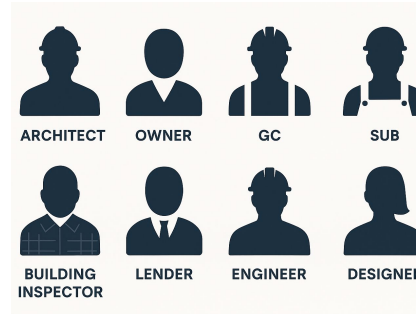
Project differences



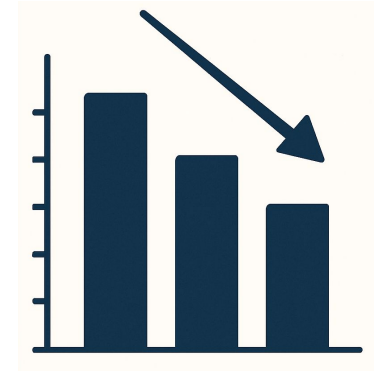
Unstructured Data



Multiple Stakeholders



Low margin for error



The Core Technologies Behind Construction AI



Natural language search
"Was the kitchen wall approved for removal?"



Image & video Understanding
"Auto-tag photos showing progress on framing"



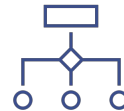
Anomaly Detection
"Hours logged on a phase that hasn't started yet"



Summarization
"Send a summary of this week's activity"



Speech to text
"Transcribe a walk-and-talk site meeting into a punch list"



Classification
"Auto-tag invoice line items to cost codes"



Generation
"Create a project schedule from my estimate"



Interactive Chat
"What's the status of the garage foundation pour?"



Prediction
"Week 6 cash shortfall due to slow invoice payments"

and many more...