

Current Technology Applications

The Art of the Practical



October 2023



Agenda

- Quick Intro – Who are these 1RIVET Guys?
- 1Lab
- Real World Examples and Use Cases
 - ML with RPA
 - IoT and Digital Twins in Real Estate
 - Generative AI with CRM, ERP, BI, etc
 - Natural Language Processing for Call Centers
- Generative AI – Future of Marketing for your consideration
- Q&A

BACKGROUND



375+

Employees (US/India)



15

Years in Business



150+

Certified Professionals

INDUSTRIES



Financial



Utilities



Insurance



Service Companies

FOCUS AREAS



Microsoft
Dynamics 365



Custom Application
Development



Data Management
& Visualization



IT Mergers, Acquisitions,
Divestitures

PARTNERSHIPS

Gold

Microsoft
Partner



CERTIFICATIONS

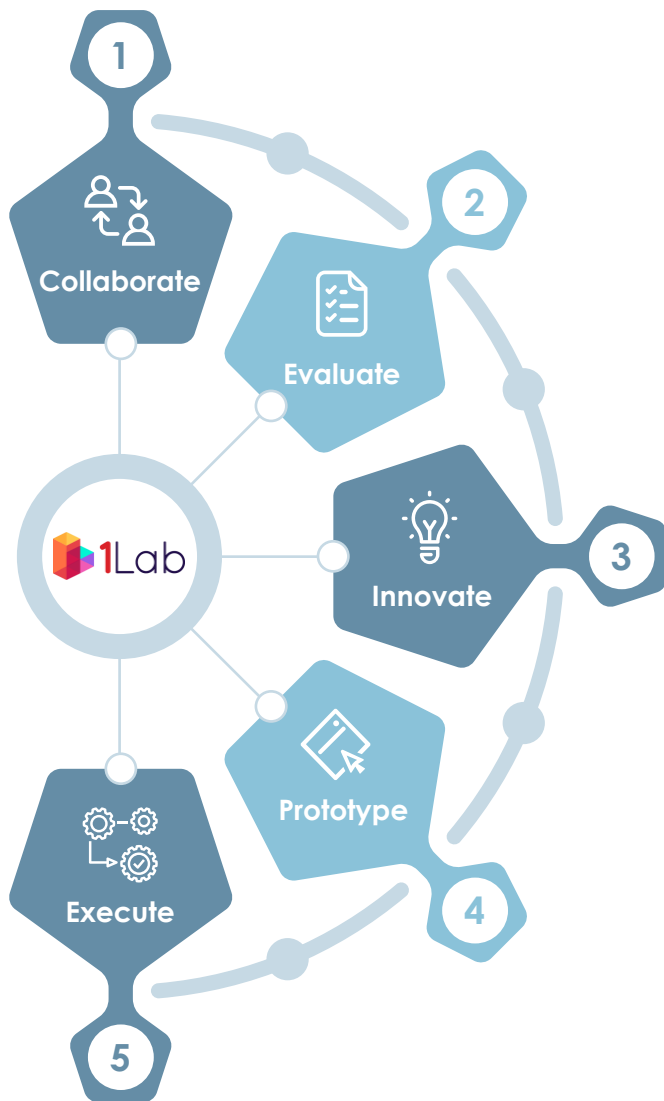


Problems with Innovation

Researching, designing and validating new solutions is challenging for many companies...



1Lab was created to make Innovation Accessible



1 A Hybrid Collaboration Environment

- 1Lab is an integrated physical innovation center located within the technology campus
- Offers both cloud and on-premise environments where collaboration with clients on their game changing new concepts

2 Evaluate Technology

- Before adopting a technology accelerator, platform or tool, it is advisable to evaluate it before making significant investments
- Evaluate the technology against other options available in the market or based on the organizational parameters

3 Innovation focused Engagements

- 1Lab can quickly demonstrate the value without significant time or investment. The focus is primarily on the underlying problem.

4 Conceptual model to Production ready Prototype

- Whether a timeboxed POC, Prototype, or MVP, adapting to the client's lifecycle and needs is the focus
- Competitive and variable project costs drive serious ROI for clients while achieving breakthrough solutions and business advantage

5 Agile and Lean Execution

- Every 1Lab engagement has a very targeted scope, staffed with a lean team and product manager typically from your team
- 1Lab collaborations are an optimal way to initially partner with and evaluate capabilities and experience

A hand holding a pen over a document with a blue overlay and floating cubes.

ML with RPA

Machine Learning with RPA

Client Background | Problem Statement | Solution

Background

- Client HAD to process Wire Transfer over a 5-day period each month (very heavy) and heavier at quarter end
- Wire Transfer have very little data on them from bank to sell you much about the payment (Shortened name, PE firm paying, no invoice #, etc.)
- Process is very time consuming – match payment to borrower, client, investor and then move from wires platform to Fat Client (LoanIQ)
- Client had to most post payment same day because money came in and borrowers/investors had to get paid same day
- 1Rivet had 4 people offshore (full-time) plus client would pull off between 7-10 people each month for 5 days to process payments
- Company expected to grow 100% in 2 years – 1Rivet grows to 8 people and client has to hire 5 more people and now pull 13-15 people off daily tasks

Problem Statement

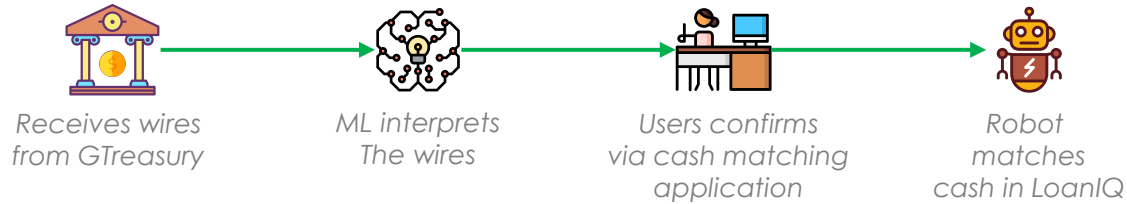
- How to you match and post cash with little to no human involvement? Remove the Human!

Solution

- Built a custom Machine Learning and RPA solution (including UI/UX)
- Machine Learning “learns” from humans and increases its confidence score based on feedback
- If machine 80% confidence client allows payments to be processed fully
- When the solution was deployed, it was 70% confident...6 months later 90%...3 months later 97%

Use Case | Cash Matching | Machine Learning + RPA

Automation of cash matching using self learning RPA (RPA + ML). Machine learning identifies customer and servicer associated to the wires received. Once servicer confirms the ML recommendation, RPA matches cashing in their subledger system



Bulk Matching feature: Allows users to match 100s of wires on a click of a button. ML will automatically process the wires in the future based on score.

Result



Benefits

- Ability to support increased incoming cash 30% YoY
- Focus on value added tasks
- Speed 4X
- Cost Saving
- Increased Team Capacity

Release transition feature: to provide insights to wires with payments to multiple loan. User can confirm and match wire from this screen.

The image features a hand-drawn diagram of a cube with internal structures, overlaid on a background of hands holding a pen and a smartphone. The cube is composed of several smaller cubes, some of which are filled with various patterns and textures, suggesting a complex, multi-layered structure. The background shows a hand holding a pen, ready to draw, and another hand holding a smartphone, which is displaying a grid pattern. The entire scene is set against a blue-tinted background, giving it a digital and technical feel.

Hesta IoT/Digital Twins

Client Background | Problem Statement | Solution

Background

- Client developed home and building sensors and were ready to go to market
- The Client required real-time reporting and alerts for user action that can scale to the Enterprise
- The solution needed to be easy to use and intuitive

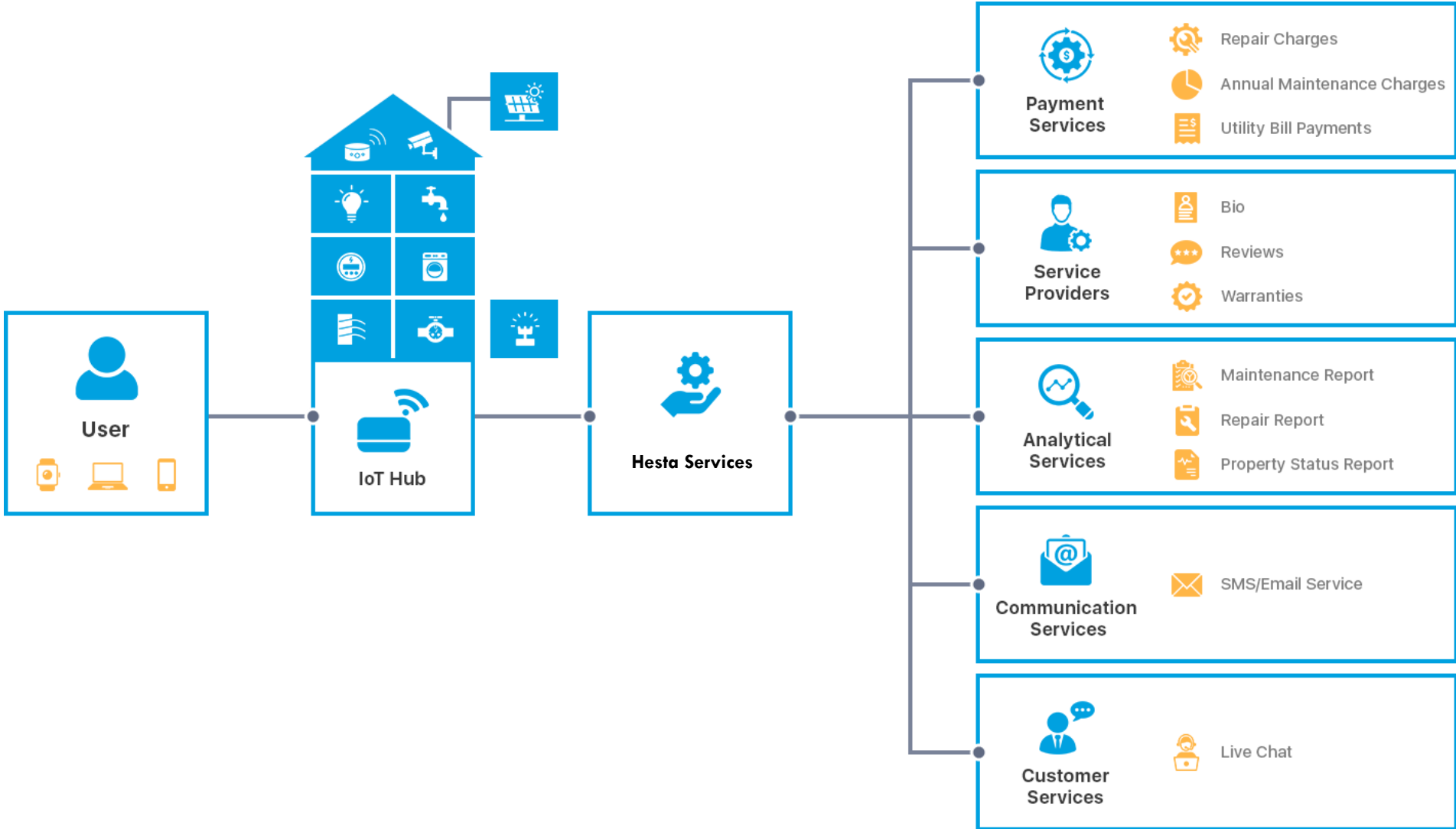
Problem Statement

- How does a hardware company build an intuitive solution for their potential customers and investors?
- How can they minimize investment for a large scale POC application and architecture to demo their product capabilities to the market?

Solution

- Build a “Tesla-like” Digital Twin/IoT application with the following features:
 - 3D Model of the exterior of the house (rendered from architectural plans)
 - Hologram (Introspective) view and Normal view (toggle)
 - Reporting of faulty devices and/or devices which require maintenance
 - Contact book of plumber, electrician, AC repairer
 - Specbook with PDF download option
- Iterate over multiple POC’s and “fail fast”

Real Estate IoT/Sensor Environment



A hand holding a pen over a document with a blue overlay and floating cubes. The image is a conceptual representation of data analysis or business strategy. A hand is shown holding a pen, ready to write on a document. The entire scene is overlaid with a semi-transparent blue filter. Several white, 3D cubes are scattered across the image, some appearing to float in the air. The cubes have various patterns and colors on their faces, suggesting data points or components of a system. The overall composition is clean and modern, emphasizing a professional and analytical atmosphere.

Dynamics Copilot Demo

Generative AI – what is it doing **right now**?

Generative AI and Automation tools help leaders and employees automate tasks, generate ideas & content, and get insights using natural language so that they can spend more time on work that truly matters.

Sales

- Prioritize Sales Tasks
- Next Step Recommendations
- Meeting Preparation & Reviews
- Progress Customer Relationships

Finance

- Faster and more accurate reporting
- Generate project task plans
- Recommend mitigation tasks

Customer Service

- Leverage company knowledge
- Generate optimized responses
- Decrease response time
- Draft complex responses

Supply Chain

- Avoid costly stockouts
- Streamline supplier communication
- Predictive supply chain insights
- Risk mitigation with real-time news analysis & notifications

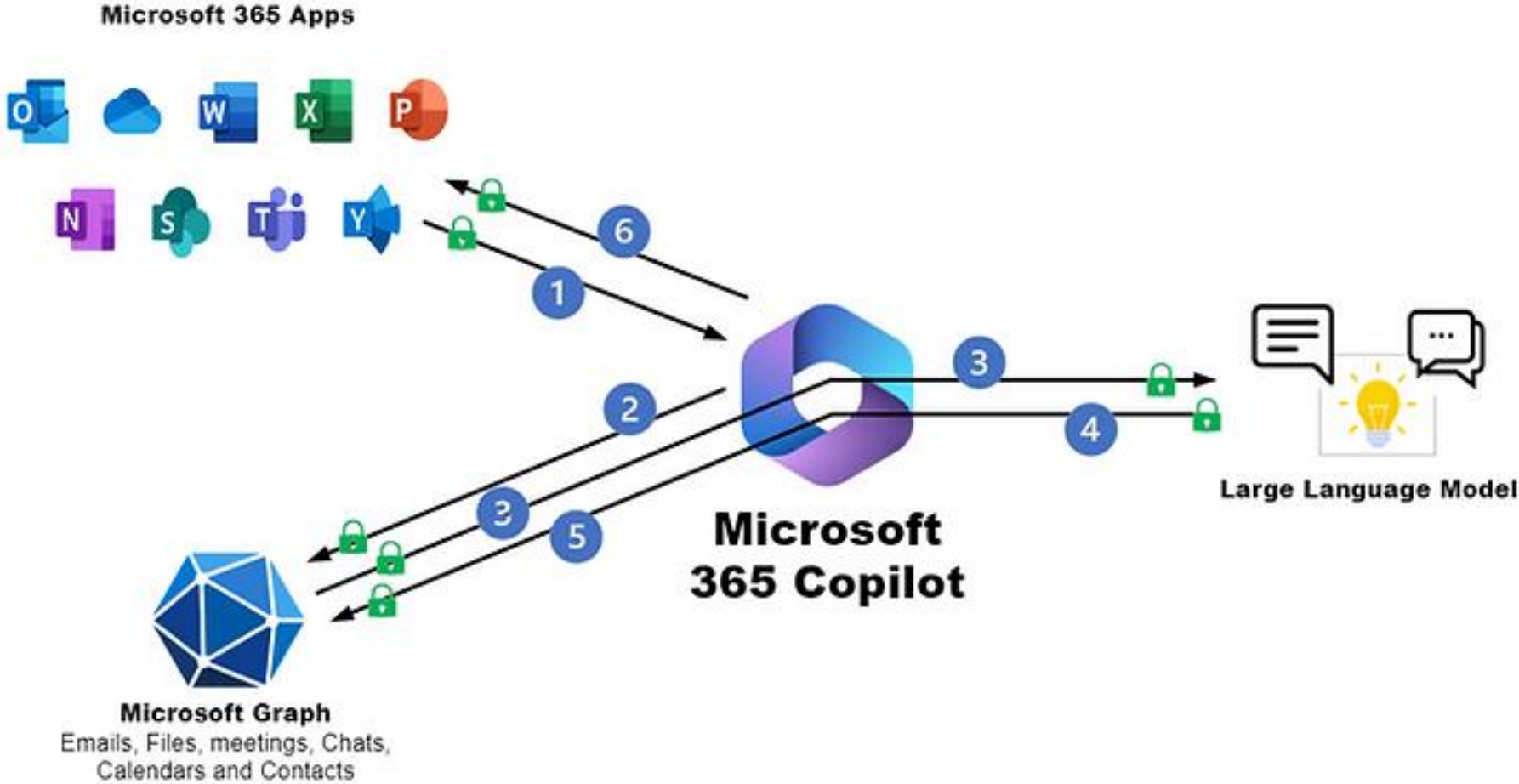
Operations

- Faster product launches
- Engaging product descriptions
- Improved conversion rates

Field Service

- Streamlined scheduling suggestions
- Step-by-step service instructions
- Updates across the team

Copilot for Dynamics, Office, Teams, etc





Natural Language Processing and AI

Client Background | Problem Statement | Solution

Background

- Client installs a device in a Customer's car
- Install is done by 6,000+ "Service Centers" (Typically, a 2-3 bay garage/repair facility)
- 99% of Service Centers are NOT owned by Client
- Service Centers are mostly Mom and Pop Owned
- Service Centers have limited non-standard technologies
- Client must call to schedule the install for their Customers
- Client must ship the device to Service Center (Next Day or 2nd Day) and Customer needs device in less than 5-7 days normally

Problem Statement

- How do increase Call Center efficiencies when scheduling appointments?

Solution – Virtual Scheduling Agents

- Clients' Customers select 3 open times (via mobile/web/text) – 72 hours prior
- The application calls the Service Center to confirm time based on Customer selection
- If a date and time works, then confirm appointment time (sends email) and text/notification/email to the Customer
- If date is not available, Service Center can provide open times – Virtual Scheduling Agent understands and communicates back to Customer via app/text/email. Obtain confirmation and calls Service Center again.
- If above doesn't work – Call Center calls Customer/Service Center

Let's Listen to The Solution

[Intox.wav - Google Drive](#)



Natural Language Processing (NLP) for Call Centers

Languages (20+)

Type of voice

Quick Try

Different Age Groups

Control Pitch

Control Speed of Voice

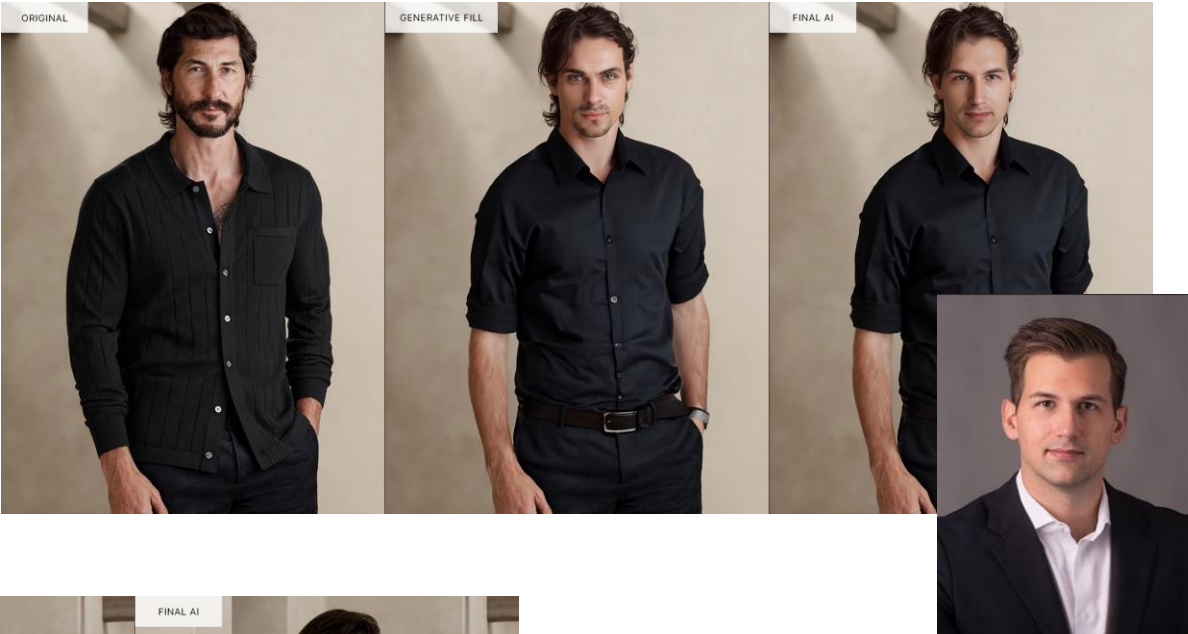
Select Emotions of voice

The screenshot displays the Rivet AI voice interface. On the left, a sidebar contains filters for language (English - US & Can...), gender (Male, Female, Non-Binary), age groups (All age groups), and a 'Hide Pro Voices' toggle. The main area shows a grid of voice avatars with names and age groups: Natalie (F) Young Adult, Terrell (M) Middle-Aged, Clint (M) Middle-Aged (highlighted with a 'Quick Try' callout), Carter (M) Middle-Aged, Miles (M) Young Adult, Amara (F) Young Adult, Charles (M) Middle-Aged, and Caleb (M) Middle-Aged. A 'Select Emotions of voice' callout points to an 'Emotions' dropdown menu with options: Conversational, Inspirational, Promo, Newscast, Calm, Sad, and Angry. Below the avatars, a control panel for 'Wayne (M)' includes 'Pitch 0%' and 'Speed 0%' sliders, and an 'Add Pause' button. A 'Control Speed of Voice' callout points to the speed control area. The interface also features a 'UPGRADE PLAN' button, 'Export', and 'Share' options. At the bottom, a timeline and preview section are visible.

Future of Marketing

The image features a blue-tinted background. On the left, a hand is shown holding a pen, poised to write on a document. In the center and right, several white, three-dimensional cubes are floating in the air. Each cube is filled with different types of data visualizations, including bar charts, line graphs, and scatter plots. The overall composition suggests a focus on data analysis and strategic planning in the context of marketing.

For Fun – Imagine the future of Marketing – 100% Personalization!!!



So Wrong...for lots of reason...but truly a marketing fail!



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THANK YOU!