

ARTIFICIAL INTELLIGENCE IN AUSTIN

INNOVATIONS, STARTUPS, AND EXITS



By Jeff Houston, CFA

Navidar recently hosted an event that provided unique insights into Artificial intelligence (AI), highlighting Austin-based companies that are solving real-world problems with AI. The sold-out event featured a keynote presentation by IBM Watson's Chief Technology Officer as well as two panel discussions and an overview of AI. Participating companies included publicly-traded, venture-backed, and bootstrapped companies. Sponsors for the event were Capital Factory, TiE Austin, and Austin Technology Council. In this note, we provide a high-level summary of this insightful event.

AI Overview

- AI represents a seismic shift in the way humans interact with information, resulting in efficiencies and better decisions—augmented intelligence.
- As an umbrella term, AI encompasses multiple technologies that augment human intelligence. These technologies include machine learning (ML), logic & rule based, natural language processing (NLP), chatbots, computer vision, and others (e.g., robotics and self-driving cars).
- Affordable cloud services and improving technology are driving accelerated AI innovation.
- Cognitive-first development with ML delivers unique results and the process is different than SaaS application development.
- Chatbots and messaging platforms combined are the next wave of human-technology interaction.
- AI innovation is driving M&A by software and Internet titans.
- Venture funding for AI was \$6.3B in 2017 (through July), nearly double full-year 2016's \$3.7B.

Horizontal/Multi-Vertical AI Panel

Our all-star panelist lineup was comprised of the following individuals.



Barbary Brunner, CEO, Austin Technology Council – PANEL MODERATOR.

ATC has been the unifying voice of technology in Austin and Central Texas since 1992. As the region's largest tech industry organization, it empowers members with insights, resources, and connections necessary to succeed and thrive. ATC works collaboratively with its partners to foster innovation and growth.

www.austintechcouncil.org



Stephen Garrison, President, Cycorp. Cycorp is a leading provider of semantic technologies that bring a new level of intelligence and common-sense reasoning to a wide variety of software applications. The Cyc software combines a common-sense ontology and knowledgebase with a powerful reasoning engine and natural language interfaces to enable the development of novel knowledge-intensive applications. www.cycorp.com



Nij Chawla, CPO, Cognitive Scale. CognitiveScale builds industry-specific augmented intelligence solutions for financial services, healthcare, and digital commerce markets that emulate and extend human cognitive functions by pairing people and machines. Its solutions help large enterprises drive transformative change by increasing user engagement, improving decision-making, and delivering self-learning and self-assuring business processes. CognitiveScale has successfully deployed augmented intelligence solutions in multiple Global 500 companies, and has formed strategic go-to-market and technology partnerships with IBM, Microsoft, and Deloitte. www.cognitivescale.com



Arun Prakash, VP Ops/CFO, Cerebri AI. Cerebri AI provides AI and machine learning solutions to help enterprises grow top line revenues by giving them a 1:1 relationship with their customers. It does this by processing internal and external customer data, and by determining the dollar value a customer places on the "value" of a vendor, products, assets, etc. Cerebri AI also monetize a critical variable in any revenue situation, the customer's ability to pay, so things such as up-selling opportunities can be clearly scoped and delivered. It calls the results Customer Value Indexes (CVIs) for brands, vendors, assets and financing. www.cerebri.com



Nathaniel Gates, CEO, Alegion. Alegion matches manual digital tasks from large companies with a *legion* of skilled, on-demand workers around the world. It delivers quality and scale to customers. Behind every judgement and every task is a real person using their knowledge, skill, experience to not only complete a task, but also provide context, emotion and humanity that machine intelligence cannot achieve. Alegion serves both the worker and the customer to provide a model for a sustainable distributed labor marketplace. www.alegion.com



Jonathan Muga, CEO, Deep Grammar. DeepGrammar is an artificial intelligence company focusing on natural language processing. The name comes from its product, a grammar checker that employs both deep learning and deep symbolic processing. www.deepgrammar.com

Topics addressed on this panel included:

- ✓ Solving real-world problems with AI
- ✓ Augmenting human intelligence
- ✓ Importance of clean data
- ✓ Machine learning technologies
- ✓ AI programmer skill sets
- ✓ Industry-specific knowledge
- ✓ Logical, rule-based programming
- ✓ Natural language processing

Vertical AI Panel

Our Vertical AI panel was comprised of executives with companies that focus specifically on healthcare, real estate, and retail.



Shakeel Rashed, Partner/Director, Capital Factory – PANEL MODERATOR.

Capital Factory's mission is to be the center of gravity for entrepreneurs in Texas. Every year, more than 100,000 entrepreneurs, programmers, and designers gather day and night, in-person and online for meetups, classes, and coworking. It meets the best entrepreneurs in Texas and introduces them to their first investors, employees, mentors, and customers. According to Pitchbook, Capital Factory has been the most active investor in Texas since 2013. www.capitalfactory.com



Rich Hughes, Head of Data, RealPage (NASDAQ: RP). RealPage is a leading global provider of software and data analytics to the real estate industry. Clients use its platform to improve operating performance and increase capital returns. Founded in 1998 and headquartered in Richardson, Texas, RealPage currently serves nearly 12,500 clients worldwide from offices in North America, Europe and Asia. www.realpage.com



John Berkowitz, CEO, OJO Labs. OJO is on a mission to fundamentally improve the way people make their most important purchase decisions through the fusion of machine and human intelligence. We created a unique, AI-based technology that blends natural language understanding, image processing, and hyper-personalization to transform the way a consumer approaches home buying and selling. The first use case, OJO, an AI-powered personal assistant, interacts on behalf of a home professional and is available 24/7 to answer consumer questions around home search, mortgage and soon more of the home buying/managing/selling process. OJO uses conversational context combined with data and a network of expert humans to answer questions, provide a personalized search experience, and engage the consumer in a two-way dialogue over an extended period of time. Concurrently, OJO provides the real estate agent with insights on their clients' preferences while nurturing these clients until they are ready to meet with their agent or see a home. www.ojolabs.com



Kyle Robertson, CEO, NarrativeDX. NarrativeDx is the artificial intelligence platform for patient experience. It helps hospital leaders and care providers hear the voice of their patients with AI. NarrativeDX’s NLP and ML provides actionable insights from patient comments to improve their institution’s patient experience, drive patient referrals, increase hospital revenue, and boost hospital reputations. Its clients have experienced \$50M of increased referrals and 80% improvements in patient experience measures. www.narrativedx.com



Andy O’Hara, CEO, Chiron Health. Chiron Health is a modern telemedicine platform designed to get physician practices fully reimbursed for video visits. With the industry’s first telemedicine insurance rules engine and seamless integration with leading outpatient EHR and practice management systems, Chiron is helping bring telemedicine into the mainstream of healthcare delivery. www.chironhealth.com



Andy Liwen, CEO, Aplacare. Aplacare’s cloud AI platform reduces cost and improves quality of care. These results are achieved by: predicting & detecting each patient’s unique needs throughout the continuum of care, improving patient interaction, and providing outcomes-based, real-time decision support to providers. Its AI tools keep the plan of care on course by augmenting workflows. www.aplacare.com



Bryan Chagoly, VP Technology, Bazaarvoice (NASDAQ: BV). Bazaarvoice helps brands and retailers find and reach consumers, and win them with the content they trust. Each month in the Bazaarvoice Network, more than one-half billion consumers view and share authentic consumer-generated content (CGC), including ratings and reviews as well as curated visual content, across 5,000 brand and retail websites. This visibility into shopper behavior allows Bazaarvoice to capture unique first-party data and insights that enable our targeted advertising and personalization solutions. www.bazaarvoice.com

Topics addressed on this panel included:

- ✓ Identifying unique trends and user habits with AI
- ✓ Human and AI interaction
- ✓ Multi-family housing AI solutions
- ✓ Single-family housing AI solutions
- ✓ Telemedicine AI solutions
- ✓ Patient-experience AI solutions
- ✓ Quality-of-patient-care AI solutions
- ✓ Retail and ecommerce AI solutions



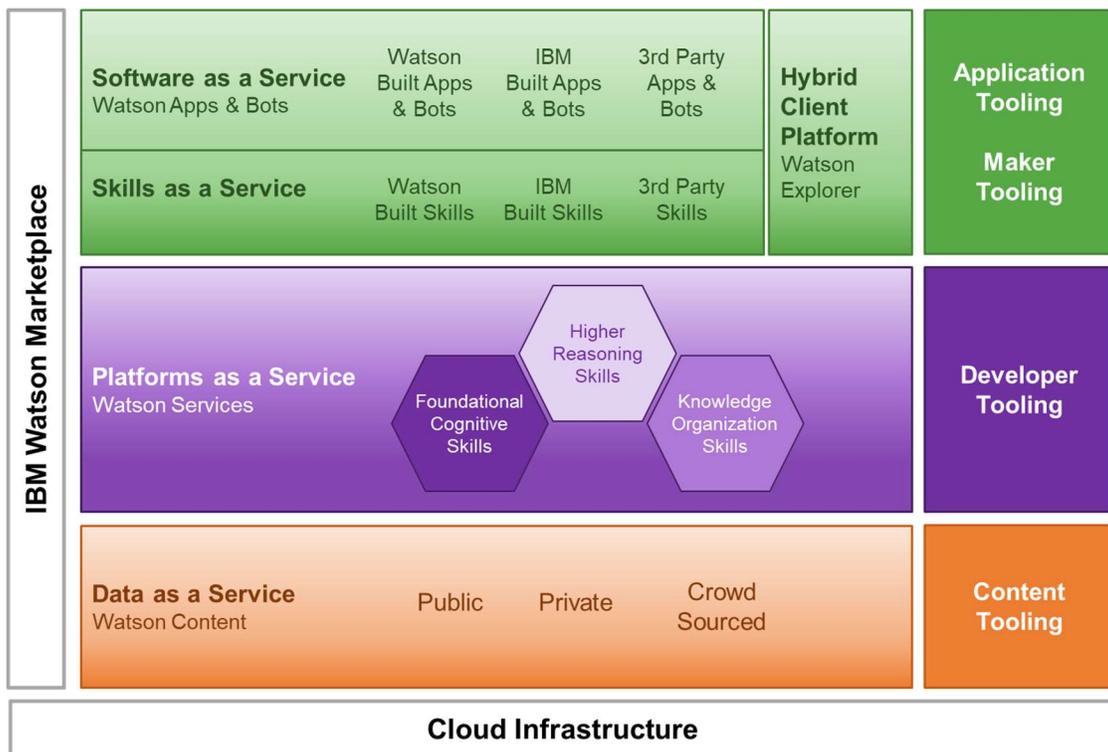
Mr. High spoke about how cognitive systems amplify human cognition.

- Cognitive systems **understand** human expressions – textual, verbal, visual
- By **reasoning** about the actual intention or problem being addressed
- They **learn** how to recognize patterns of meaning through examples and feedback
- And they **interact** with humans on their own terms, and in a way that inspires people
- ... and do so at enormous scale.

He also covered some of Watson’s Cloud APIs that IBM has made available to entrepreneurs and in-house development teams, including:

- **Language Cloud API** – author, concepts, dates, entities, feeds, keywords, microformats, relations, sentiment, taxonomy
- **Speech Cloud API** – speech to text, keyword spotting, text to speech
- **Vision Cloud API** – image classification, face detection and attribution, celebrity recognition, visual text recognition, similarity searching
- **Empathy Cloud API** – personality insights, tone analyzer, emotion analysis

As shown in the following graphic, the IBM Watson Marketplace comprises data-as-a-service, platform-as-a-service, skills-as-a-service, and software-as-a-service.



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