



# Talent Acquisition Technology: What HR Leaders Need to Know



# Introduction

This research is compiled from over 18 months of work with multiple HR leaders in the context of helping them navigate the quickly changing HR and Talent Acquisition technology market. The results of this report includes learning and information from conversations with technology vendors, including product demonstrations, sales proposals and sales demonstrations. Lastly, beyond the practical application experience, this research includes information from some of the leading books on artificial intelligence and digital transformation. Sources include:

- Human + Machine: Reimagining Work in the Age of AI; Paul R. Daugherty and H. James Wilson
- Digital Transformation Survive and Thrive in an Era of Mass Extinction; Thomas M. Siebal
- Competing in the Age of AI Strategy and Leadership When Algorithms and Networks Run the World; Marco Iansiti, Karim R, Lakhani
- Prediction Machines: The Simple Economics of Artificial Intelligence; Ajay Agrawal, Joshua Gains, Avi Goldfarb

## What's Included?

- **Artificial Intelligence, what is it?**
- **Artificial Intelligence, what are some common examples?**
- **Artificial Intelligence, how is it impacting the Talent Acquisition Tech Stack?**
- **How is the Talent Acquisition Tech Stack Changing?**
- **What are some Talent Acquisition Technologies you should be aware of?**

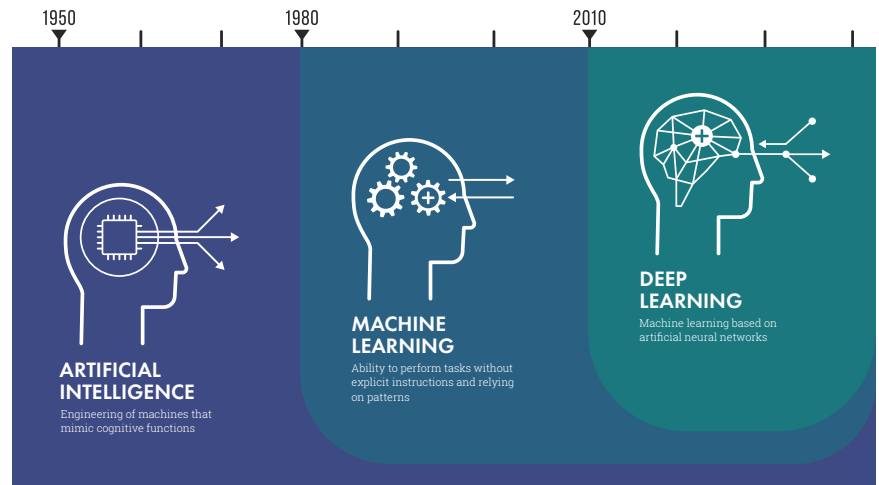


# What is Artificial Intelligence?

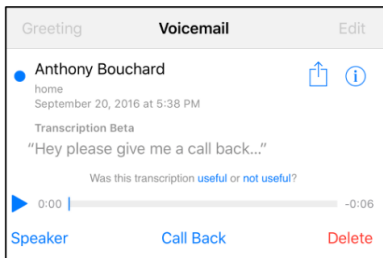
**Artificial Intelligence (A.I.)** are computer programs capable of learning and problem solving in ways that normally require human intelligence.

**Machine Learning (M.L.)** is a sub-set of A.I. that employs algorithms that learn from examples and experience rather than relying on hard-coded rules.

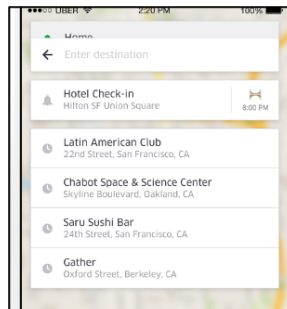
**Deep Learning** is a sub-set of M.L. that employs deep sophisticated mathematical methods ('Neural Networks') to learn from massive amounts of data.



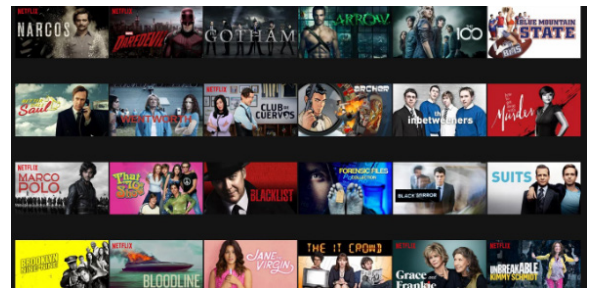
## Common Examples of A.I.



Artificial Intelligence software in the iPhone translate voicemail to text form for voicemail transcriptions using **Natural Language Processing (N.L.P.)**

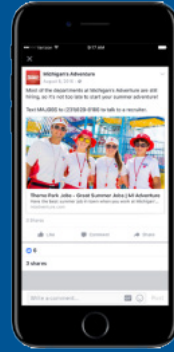
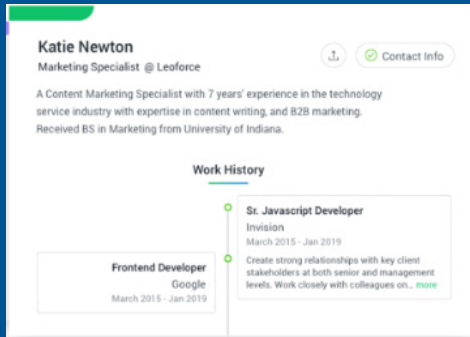


Machine learning algorithms in the Uber application predict the location you are heading by learning from past experiences using **Supervised Learning Algorithms**



Machine learning algorithms in the Netflix platform suggest personalized movie recommendations based on past watching behaviors across users using **Reinforcement Learning Algorithms**

# How A.I. is Impacting Talent Acquisition



## Sourcing

An advertisement on Facebook with a link to connect to a 'recruiter' automatically engages a passive job seeker in conversation

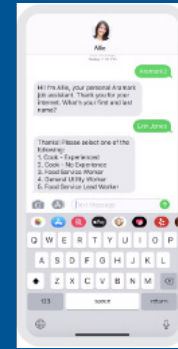
## Identifying

Automated data mining technology scours social platforms and reviews over 100,000 online profiles to identify the top 5 candidates for a CFO position - pipelining

	Jan 21 MON	Jan 22 TUE	Jan 24 THU	Jan 27 SUN	Jan 31 THU	Feb 5 TUE
Tom	✓	✓			✓	
Paula	✓	✓		✓	✓	✓
John	✓	✓		✓	✓	
Emma		✓				

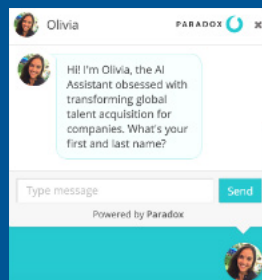
## Scheduling

Automated SMS or text message asking candidate to select a time slot for a phone screen. Recruiter automatically receives meeting notification email and calendar with call details



## Screening

Automated SMS or text conversation asking specific questions about a candidates qualifications (i.e. Do you have a Commercial Drivers License?)

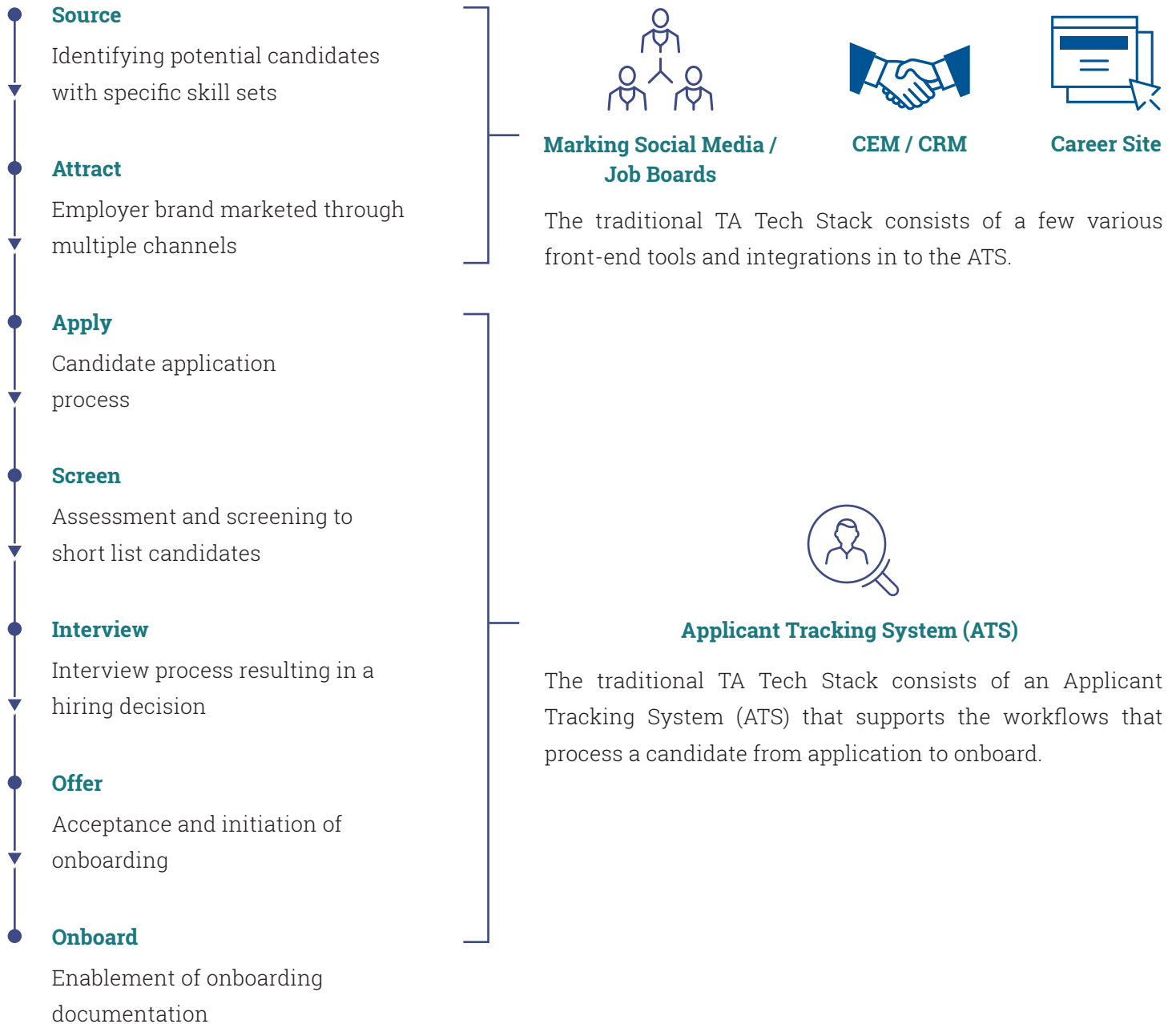


## Engaging

Chatbot on dynamic careers website answering questions about the application process or the company as candidates complete an application

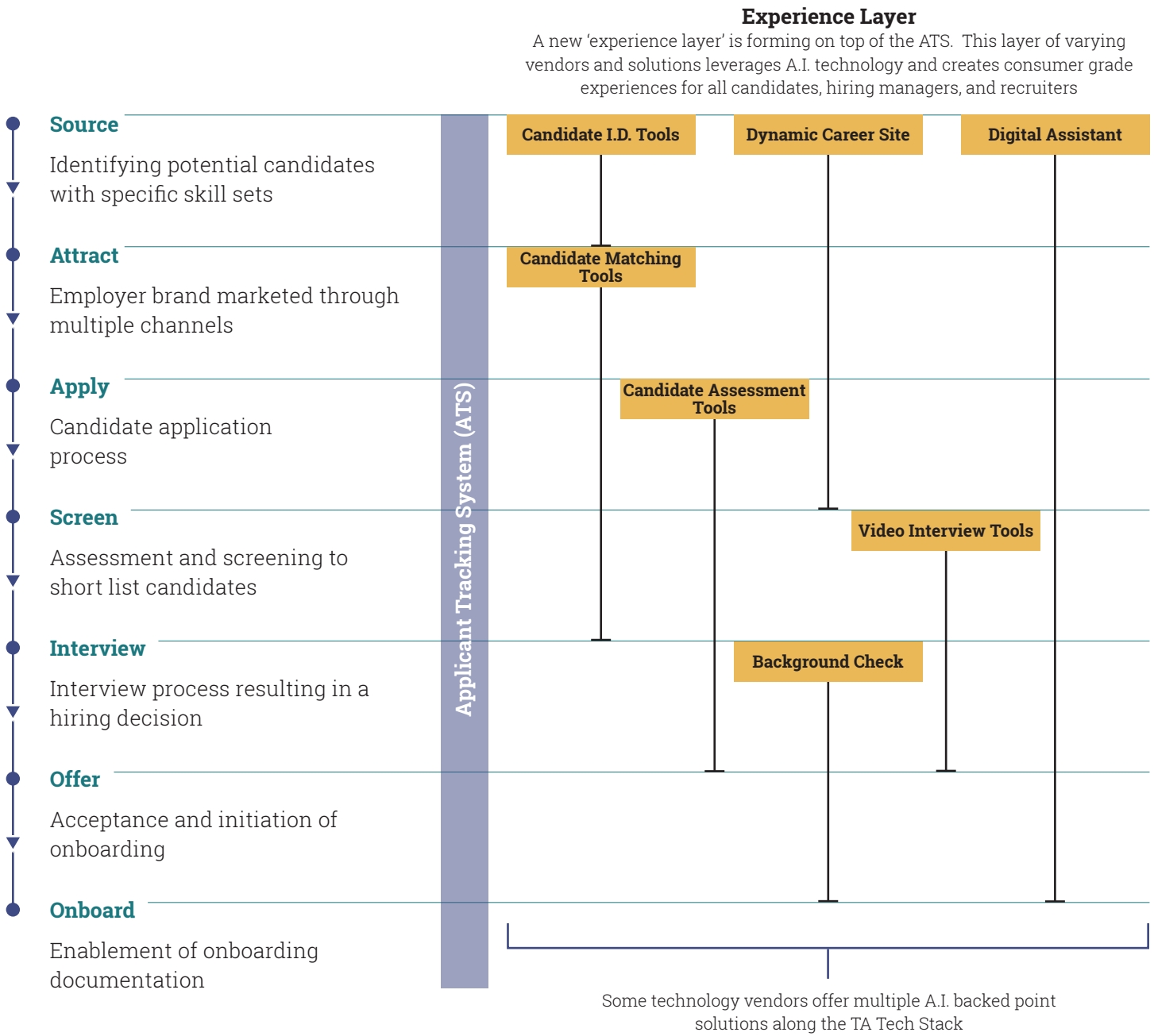
# The Traditional TA Tech Stack

## Typical Talent Acquisition Process



# The Future TA Tech Stack

The breadth of the Applicant Tracking System (ATS) is expanding to include the activities supported by a CRM. The ATS is becoming the 'sole source of truth' for all hiring data, all other TA technologies integrate in to the ATS, but the user experiences will take place in the layers above the ATS.



# Digital Assistants: What are they?

Purpose: Natural Language Processing technology (N.L.P), engaging with candidates through web, mobile, and social channels. Screening, scheduling, and answering questions at scale.

## Market Solutions

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Digital Assistant technology will potentially revolutionize the entire HR Service Delivery model, replacing Tier 1 support center help.

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# Candidate Identification: What are they?

Purpose: Machine Learning (M.L.) Technology searches world wide web identifying candidates via public online profiles, with skills, experiences, and other public information matched to job criteria

## Market Solutions

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Google has indexed information on the world wide web, a growing segment of companies are indexing public and professional information, enhancing how you source and identify specific talent.



# Candidate Matching: What are they?

Purpose: Machine Learning (M.L.) technology reviews, identifies and rank stacks best resumes in Applicant Tracking System (A.T.S.) based on pre-programed algorithms to identify candidates for open jobs

## Market Solutions

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Amazon and Netflix recommend the next video you should watch. These vendors recommend the next candidate you should hire from existing candidates in the ATS.

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# Candidate Assessment: What are they?

Gamification and Data Analysis technology provide objective, unbiased, and predictive outcome (biased off current employee performance data) for how well potential candidate would fit organization, culture, role, or suggested for other roles.

## Market Solutions

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Picking the right fit is more important than ever. Leveraging behavioral science and psychology organizations are better able to predict how successful a candidate will be in the organization or job.





# Video Interviewing: What are they?

Purpose: Natural Language Processing (N.L.P.) and Machine Learning (M.L.) technology review candidate recordings and provide unbiased assessment feedback for candidate potential and fit

## Market Solutions

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Video interviewing is here to stay. Be sure to pick a vendor that will integrate in to your ATS. Video Interviews may be subject to audit in the future and will need to be easily retrieved.

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# Background Check: What are they?

Purpose: Machine Learning (M.L.) technology assess candidate criminal history and public records to make prediction on likelihood of background check passing. Additionally M.L. technology continuously monitors employee population and flags any risks or new criminal reports

## Market Solutions

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On average it takes 30 days for a background check to be run and adjudicated, significantly delaying the time for a candidate to start. Intelligent platforms are reimagining the background check experience.

# Thank You!



## Bio

Chris Schmelzer is a futurist, coach, and visionary leader. He serves leaders who are challenged with finding clarity as they explore accelerating technology and work to understand how it will transform their organizations. He partners with clients and coaches them in their evolution as leaders, advises them on the future of work, and works alongside them as they facilitate change for their teams and organizations. He has supported leaders as they lead change and navigate the future of work. The focus of his pursuits have centered around helping leaders envision the future, align stakeholders around the vision, and catalyze the adoption of future technologies.

For Chris, the privilege of serving leaders has brought an abundance of learning, observations and reflections. From this experience it is his calling to humbly share the knowledge and wisdom obtained. He has come to find out that his purpose is to help leaders find clarity, see around corners, and envision the future.



**Chris Schmelzer**  
**[chris@thehelpfulvisionary.com](mailto:chris@thehelpfulvisionary.com)**



