BEHAVIOR AND ARTIFICIAL INTELLIGENCE IN THE WORKFORCE

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POINT OF VIEW

Technology is becoming increasingly present in each employee's everyday life.

The needs and skill sets of the workforce are constantly changing, and our education programming needs to adapt and accommodate to allow employees to be prepared.

METHODOLOGY

1 Mind-Mapping

2 Analogous Inspiration

3 Secondary Research

4 Survey

How might **artificial intelligence** impact the future of work, specifically regarding **continuous education and training,** if companies respond to the **evolving skills required in the changing workforce and the way in which humans' learning develops**?

SURVEY DEMOGRAPHICS

Total Respondents: 68

Age
- ⚪ 18-24
- 🟢 25-39
- 🟡 40-62

Race
- ⚪ White
- 🟢 Asian
- ⚫ Black
- 🟡 Hispanic or Latino

Education
- ⚪ College Graduate
- 🟡 Some College, Active
- 🔵 Some College, Past

Professional Experience
- ⚪ Currently have or perviously had a co-op
- 🟡 Currently full-time that does NOT require continuous education
- ⚫ Currently full-time that does require continuous education
- 🔵 Has not held a professional job
- 🟢 Retired

INSIGHT 1

Training takes longer today then it did 5 years ago, and trainees seek a training style that is enjoyable and keeps them engaged.

INSIGHT 1 BACKGROUND

Field Research

42% of survey respondents reported that the <u>least enjoyable</u> aspect about training is the **style** in which it is taught.

25% of survey respondents reported that the <u>least enjoyable</u> aspect about training is the **time** it takes.

Secondary Research

We discovered that the average **length of training** needed for a worker to close a skills gap today is **36 days** compared to 3 days in 2014[1].

INSIGHT 2

To-Do lists that are not managed thoughtfully and carefully can bring about a wide range of emotions that could prevent their completion.
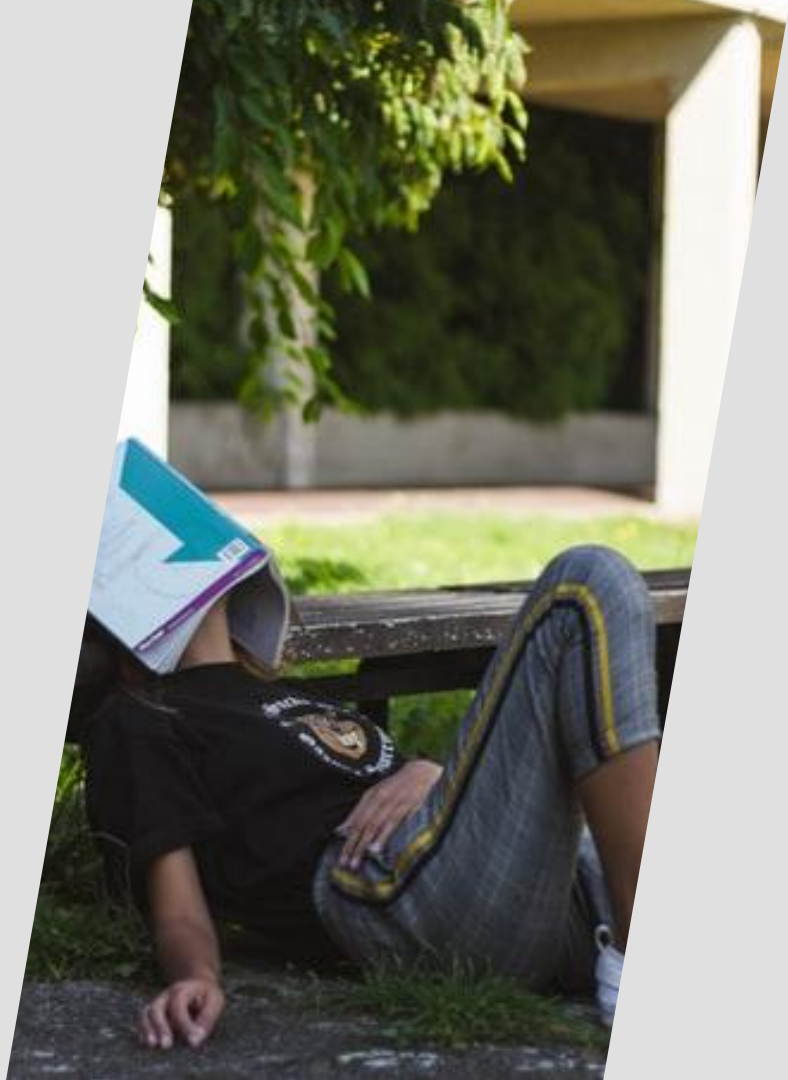
INSIGHT 2 BACKGROUND

Field Research

We heard that people feel **stressed** and **overwhelmed** when looking at a long list of tasks to do.

We heard that completed tasks bring a sense of **accomplishment**, but leftover tasks can bring **disappointment**, **anxiety**, and a sense of being **overworked**.

Secondary Research

We discovered that the more **emotionally conflicted** people feel by a task, the **less time** they feel they have, and thus the higher chance of **incompletion** or **failure**[2].

INSIGHT 3

The hardest part of completing a task is starting it. Without a clear schedule of when tasks should be completed, it is difficult to begin the task.

INSIGHT 3 BACKGROUND

Field Research

24% of survey respondents are motivated to <u>start a task</u> by **deadlines**.

30% of survey respondents are motivated to <u>finish a task</u> by the pure motivation of **completion**.

Secondary Research

We cross a mental threshold, usually in the face of an impending deadline, in which "the pain of *not* doing it becomes **greater** than the pain of doing it."[3]

Newton's First Law applies: Once a task has begun, you don't need much motivation to finish it[3].

Setting a **schedule** puts decision-making on autopilot by giving your goals a time and a place to live. It avoids the mental battle of, "I hope I feel motivated today."[3]

INSIGHT 4

AI in combination with AR/VR allows students or trainees to be more engaged, simulate real scenarios, and have a personalized learning experience.

INSIGHT 4 BACKGROUND

Field Research

30% of survey respondents want a training program that is **interactive** and **enjoyable**.

**17%** of survey respondents enjoy **watching TV** or **movies** in their free time.

Secondary Research

82% of companies currently implementing AR/VR say the benefits are either **meeting** or **exceeding** their expectations[4].

Microsoft designed AR/VR to "help increase student **engagement** and **retention** through 3-D technologies."[5]

A blend of VR + Gamification is currently onboarding employees in an **engaging** and **time sensitive style**[6].
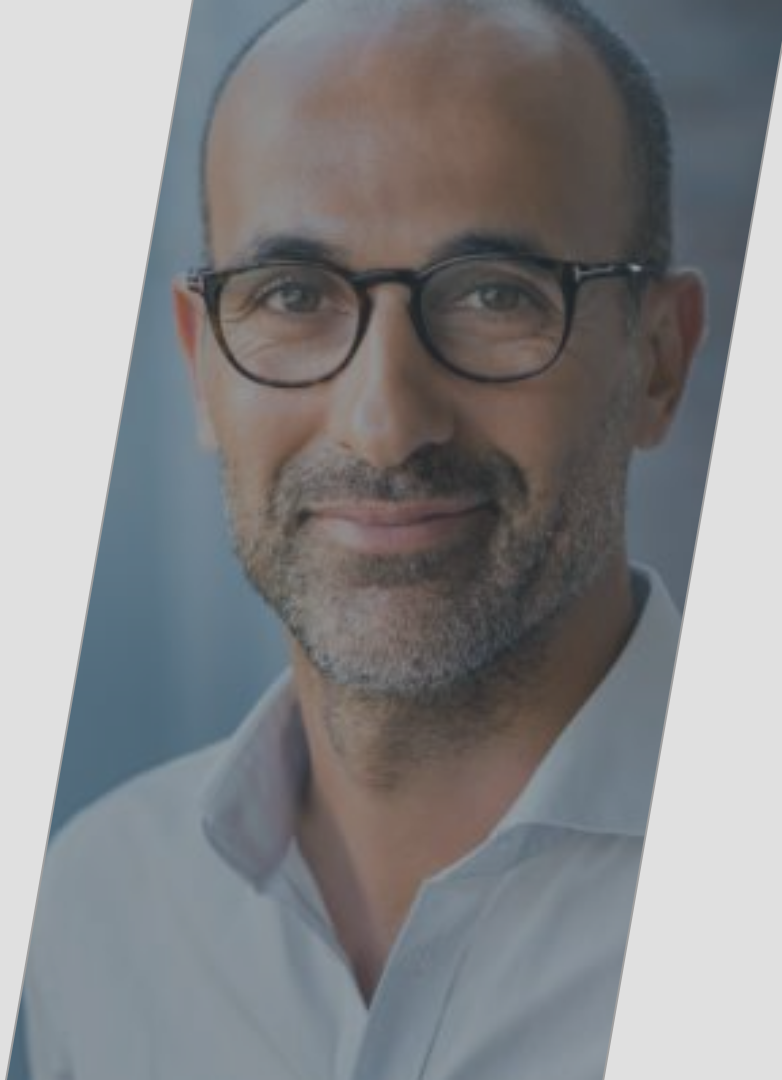
STEVE

Steve is 48 years old. He currently works as a Physical Therapist. His profession requires him to complete continuous education online every 2 years. He is motivated by flexible schedules, benefits (like telecommuting, recognition from the boss, and bonuses), stock and gift cards as monetary rewards.

KYLE

Kyle is 30 years old. He owns his own startup and serves as a software engineer. He thrives in an environment with structure, stability, continued learning opportunities, and immediate feedback. He values flexible schedules, time off, and ways to embrace the latest technology to communicate.

ZOEY

Zoey is 13 years old. She is in junior high school, and her favorite class is art. She wants her actions in life to be meaningful and be given responsibility.

3 YEAR FORECAST

All companies begin requiring additional **in-house training**. The office closes at a **specific** time each week/month for mandatory training.

AI systems begin to track information on workers about **how they learn** best, the **time it takes** them on average to learn certain skills, and where their **skill level** is at.

AI systems integrate into continuous education programs and can break educational content into **manageable chunks** based on individual's performance.

10 YEAR FORECAST

AI system **personalizes** continuous education by curating content and instruction to individual learning plans and styles. AI system reacts in real-time based on **emotional response**.

AI system track at which times during the day and week that is best for an employee's engagement and **schedules** tailored continuous education during that time.

AI system tracks an employee's every day tasks and can suggest educational tools as they become **relevant**.

AI and AR/VR allow people from all over the world(s) to tune into a **virtual classroom** with a **human teacher** and human classmates (if desired), with added **gamification** or **simulated scenarios**.

20 YEAR FORECAST

Personal Learning AI allows curriculum-on-demand for **rapid job change**. This will replace the need to return to a formal education system to acquire a new specialized skill set.

When a project is presented to a team, AI systems distribute tasks and pair relevant employees. They each **'play the game'** based on each individual's strengths and personal learning motivators.

CONCLUSION

EVOLVING SKILLS

The skills required in the changing workforce are constantly evolving, so companies need to implement AI integrated software to stay relevant.

HUMAN MOTIVATORS

Understanding human motivators will decrease the time it takes to close a skills gap/be more efficient and productive in accomplishing tasks.

SCHEDULED AND MANAGEABLE

People work best when they can stick to a schedule that works for them, and AI can ensure employees receive this content at a rate and time that suits their workload, responds to their emotional state, and empowers them to achieve their goals.

PERSONALIZED AND ENGAGING

Personalizing education with AI will allow individuals to activate their interests and pursue their personal and organizational goals efficiently. Engaging systems such as gamification and VR will create higher productivity through an environment that is both interactive and enjoyable.

CITATIONS

1. https://www.cnbc.com/2019/09/10/120m-workers-need-retraining-but-many-already-have-skills-employers-want.html
2. https://psychcentral.com/blog/how-anxiety-and-guilt-affect-your-to-do-list/
3. https://jamesclear.com/motivation
4. https://www.prnewswire.com/news-releases/immersive-technology-has-arrived-ar-and-vr-set-to-become-mainstream-in-business-operations-in-the-next-3-years-300708595.html
5. https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2019/11/27/the-impact-of-vr-ai-and-ar-in-the-workplace/#382c6bde132e
6. https://trainingindustry.com/blog/learning-technologies/virtual-reality-and-gamification-a-blend-for-better-learning-outcomes-and-performance/

STEVE

Steve is 51 years old. The physical training facility that he works in closes at 3pm every other Friday for continuous education. This week's training is on the new software his company is using for paperwork. Meanwhile, the AI system is starting to understand that Steve is a visual and auditory learner.

KYLE

Kyle is 33 years old. A strong believer in keeping up with the latest technology, Kyle engages in a weekly personal training track that is broken down into comprehensible sections for a new emerging software that will be vital to his venture. He does this on Thursday mornings for his company's set aside training time.

ZOEY

Zoey is 16 years old and in high school. Her favorite class is still art, and she is beginning to think about a future career in art. She enjoys flexible schedules, experiential rewards and badges such as those earned in gaming and opportunities for personal growth.

STEVE

Steve is 58 years old. He likes to start his week with a new skill to encourage creative thinking for the remainder of the week. His personalized continuous education is scheduled for Monday mornings at 9am with videos and voice overs. On the weeks when he feels the Monday blues, the AI system reschedules his continuous education to later in the week.

Recently, his AI-assisted research on the knee impressed his boss enough to earn Steve a promotion.

KYLE

Kyle is 40 years old. His home life has become hectic taking care of his kids, but his personal learning AI can work around his schedule in real-time. He also attends a VR classroom from home to avoid extra commute headache and get hands-on instruction from experts around the world(s).
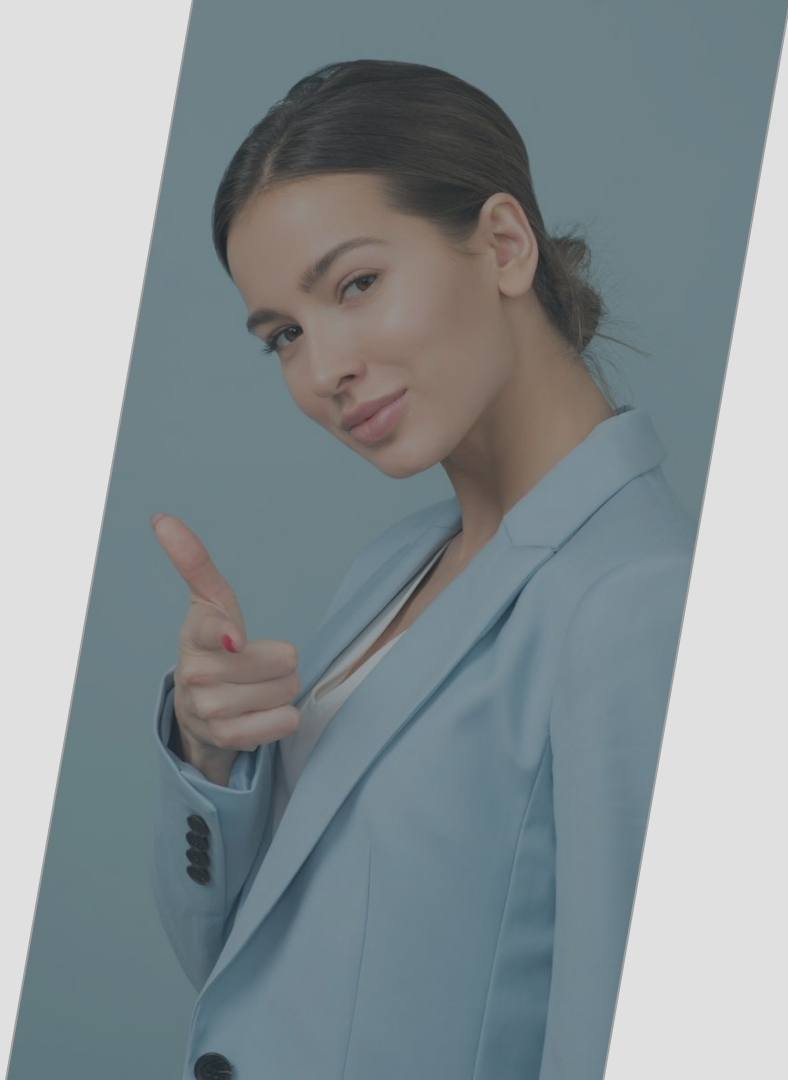
ZOEY

Zoey is 23 years old and just graduated from college with a degree in Graphic Design. She is beginning her first full time job as a Graphic Designer. She feels a lull during the middle of the week, so her personalized training is scheduled for Wednesday afternoons to give her a creative boost. The AI system detects that she performs best with gamification badges and steady praise and encouragement, so it engages Zoey in an AR environment to earn rewards and celebrates her progress.

STEVE

Steve is 68 years old and enjoying retirement. He and his wife, Linda, particularly love the Caribbean. Steve is considered an expert in his field and now offers trainings on specialized topics. He uses VR technology to call in from Aruba and incorporates patient simulations with a praise and reward-based structure.

This fits his new lifestyle because he can share his knowledge and be interactive with trainees while enjoying the beach with his wife.

KYLE

Kyle is 50 years old. He now leverages AI to pair employees together across many projects and ventures as a team for a simulated "game". This provides a dynamic, engaging, and tailored experience for the team. For example, Kyle is a perfectionist that thrives on the "game" providing feedback about his performance, while his competitive coworker Mary is motivated by seeing her teammates' progress for their tasks.

ZOEY

Zoey is 33 years old. She decided that she no longer wants to be a Graphic Designer. Instead, she is interested in pursuing a career in financial planning. She is able to virtually attend seminars with top financial planners and professors. Additionally, she uses her AI/VR system to simulate training scenarios. When she starts out on the job, her AI system tracks her every day tasks and populates training activities to increase her efficiency and skill. These advanced training systems allow her to transition smoothly and rapidly between careers.