AI to Bridge Specific Gaps in Higher Education Towards Industry Readiness

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Abstract. The transition from a college graduate to an industry professional is often hindered by a gap between academic focus and the specific skills sought by employers. Multiple attributes characterize a student as being industry-ready often much beyond the knowledge imparted by the curriculum. The attributes of industry readiness are elaborated in this paper. The paper further proposes a system derived from the classical Computer Adaptive Testing approach to identify and bridge specific attributes in students targeting a job role and a domain. This system is personalized to a student and is administered before the student graduates from college. The premise here is that every student will have unique gaps concerning industry readiness and these gaps need to be identified and bridged during their college program at a personalized level. Artificial Intelligence is used extensively to realize and implement the system. Generative AI and AI recommender systems are two exciting areas of AI with the potential to revolutionize education which is profoundly utilized in this system. By analyzing industry needs and graduate skillsets, the proposed system can identify areas for targeted development and recommend corrective action to bridge the gaps.

Keywords: Adaptive Testing, Computer Based Testing, Student Readiness, Generative AI

1 INTRODUCTION

The conventional notion that a college degree equals a good job is undergoing a revision. While a college education remains valuable, graduating with just a degree no longer guarantees immediate and smooth entry into the workforce. Employers are increasingly seeking candidates with well-developed skills beyond their academic knowledge [1]. Employability in higher education is broadly defined as the ability of a graduate to translate their education into practical skills and secure meaningful employment [16]. The skills gap between higher education graduates and employer expectations is a growing concern. Technological advancements and a rapidly evolving job market demand a workforce equipped with digital literacy, critical thinking, and strong communication and collaboration skills. Employers see room for improvement in the preparation of college graduates for work [5]. College curricula need to adapt to equip students with essential 'soft skills' alongside their core academic knowledge. Bridging the employability gap requires a collaborative effort. Students need to take an active

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role in developing their skills, seeking out opportunities beyond the classroom, and utilizing university resources. Universities must adapt their curriculum to prioritize the development of essential workforce skills. Universities across the world have acknowledged the gap between curriculum and employer expectations or the skills required for new graduates to excel in the workplace. Several models and frameworks have been created to identify the student's gaps at the workplace and create a curriculum to narrow the gaps [9].

Creating an Industry workforce from a college education is an enormous challenge for educational institutions across the globe as employability comprises multiple attributes such as knowledge, acquiring and being able to practice skills for a specific job role, effective communication skills, emotional maturity, and several others depending on the job profile [13]. The intensity of these attributes required in a graduate varies with respect to the program stream and the job role. The level of training required for some of these attributes such as entrepreneurial mindset and soft skills varies across students as these are acquired and developed over a period from childhood. This makes it highly challenging to create a uniform formula or mechanism to impart all these attributes in the program curriculum. There is considerable scope and opportunity to devise new methods that are personalized and individually maneuver a student on the career ladder while in college. Artificial Intelligence (AI) technologies can create adaptive and personalized learning paths. Various AI technologies such as natural language processing, artificial neural networks, machine learning, deep learning, and genetic algorithms have been implemented to create intelligent learning environments for behavior detection, prediction model building, assessment creation, and learning recommendations. Overall, the applications of AI systems and technologies have transformed higher education and have provided opportunities and challenges for improving higher education quality [14].

There have been several innovations in education practices over the past few decades [18]. One method that has gained traction over the years in assessments is Computer Adaptive Testing (CAT) which is a form of testing that varies the difficulty, level, and order of questions that get asked depending on the student's performance within the test [10]. Adaptive testing methods have been found to outperform conventional testing methods in capability assessments [21]. This paper focuses on using the principles of adaptive testing to develop an auxiliary method of preparing graduates to be industry-ready during their higher education degree program. The primary motivation of this article is the need for personalized guidance to lead a student to industry readiness along with the skillsets imparted by the curriculum. The goal of this paper is to develop a method to prepare students for a specific job role by identifying and bridging individual skill and behavioral gaps. The proposed system comprehensively uses AI technology to accomplish this goal. The proposed system founded on classical learning theories presents a novel system to elevate or meet the expectation of industry readiness as perceived by employers.

The paper is structured as below. Section 2 provides a background of conventional assessment mechanisms, and the inherent problems associated with measuring employability. This section further introduces AI-based solutions in education. The challenge of using conventional assessments and the need for novel approaches is presented in section 2. Section 3 elucidates the scope of the problem in discussion. Section 4 examines the term 'student readiness' and expresses the term in quantifiable and measurable numbers to develop a bounded solution. Section 5 explores in detail the fundamental theories of developing adaptive tests. The objective of adaptive tests in this case is slightly different from the typical usage because the goal here is to improve the student's conceptual understanding and adeptness through a series of interventions and assessments adapting to their learning patterns. With this stated goal, emphasis is put on item selection and test termination methods as applicable to achieving the stated goal. Section 6 describes the technological elements needed to realize the system. AI technology is an integral part of this proposed system. Generative AI is used in many parts of the system. Section 7 discusses the feasibility and implementation aspects of the proposed system. The conclusion is provided in Section 8.

2 BACKGROUND

The aim of this section is to highlight the conventional assessment practices and present their inapplicability to solve the problem in discussion. Subsequently, AI methods are discussed as candidate technologies to develop novel solutions.

2.1 Conventional Assessment Practices

Many universities are using conventional assessment mechanisms such as tests and interviews to assess the employability level of students [17]. While these mechanisms offer valuable insights, they have limitations in assessing and correcting a candidate's ability to perform and contribute to the workplace. Tests, particularly standardized ones, provide a seemingly objective measure of a candidate's knowledge and skills. They can efficiently screen large applicant pools and identify individuals with the technical qualifications required for the role. Aptitude tests, for instance, can assess problem-solving abilities and critical thinking, while skill tests can evaluate proficiency in specific software or tools. However, tests often lack context and may not reflect real-world application. Academic scores might not necessarily translate to effective on-the-job performance, and conversely, someone who struggles under test pressure could excel in the actual role. Interviews, on the other hand, allow for a more refined assessment. They provide an opportunity to delve deeper into a candidate's experiences, motivations, and soft skills like communication, teamwork, and adaptability. Employers can gauge cultural fitness, assess communication style, and understand a candidate's approach to problem-solving. However, interviews are inherently subjective and susceptible to bias. Unconscious biases based on factors like appearance or communication style can influence the interviewer's decisions. Traditional interview formats might also overlook valuable skills that do not readily translate into a pre-defined set of questions. The challenge of conducting interviews in an academic environment is finding

interviewers who can provide multi-dimensional feedback that matches the expectations of the employers. Even more, these mechanisms must be administered and evaluated for a prolonged period to make the student 'industry ready' or prepare the student to imbibe the skills and behaviors required at the workplace.

The measurement problem inherent in conventional tests has long been acknowledged across multiple fields [12]. For example, in athletic competitions, measuring an athlete's hurdle-jumping ability by having them jump over a succession of two-foot hurdles repeatedly is not an accepted practice. A series of progressively higher hurdles are set up for the athlete to clear until they can no longer do so. A narrow range of hurdle heights based on the participant's initial successful clearing level is established to obtain a more definite measure of their hurdle-clearing capacity. The athlete works at this level and endeavors to enhance their performance by focusing on specific improvement areas. The task is tailored to the individual's performance for an accurate estimation of each athlete's ability. The thought here is whether a similar concept can be applied to skill assessments. The purpose of the above discussion is to highlight the lacunae of conventional assessment approaches while assessing a student for employment readiness and to pave the need for creating specialized and novel approaches. Alfred Binet, in the early days of psychological measurement, adapted his test [2] to the examinee by basing it on chronological age norms before the standardized paper and pencil test existed. He chose items suitable for each age group based on the response of 50% of its population. The test consisted of a set of items for ages ranging from 3 to 11 years old. Binet's test consisted of an adaptive procedure using a bank of items for which he was the first to develop.

2.2 Measuring Employability

Creating an Industry-ready workforce from a college education is an enormous challenge for educational institutions across the globe as the term employability or industry ready has multiple dimensions and takes multiple parameters to measure [6]. Employability virtue comprises multiple attributes such as knowledge of the student, acquiring and being able to practice skills for the specific job role, problem-solving and critical reasoning skills, effective communication skills, and emotional maturity. The level of these attributes required in a graduate varies with respect to the program stream and the job role. For example, the measure of these attributes required for a candidate to perform effectively in a managerial role will vary from the measure of these attributes required in a data analyst role. The proportion of each of the attributes that contribute to industry readiness is dependent on the domain, job role, and the expectation of the employer. For example, startup organizations look for more communication and the ability to ideate as the processes within the organization may not be as mature in comparison to well-established organizations in the same domain. The level of training required for some of these attributes such as entrepreneurial mindset and soft skills varies across students as these are acquired and developed over a period from childhood. This makes it highly challenging to create a uniform formula or mechanism to impart all these attributes to a learner in a structured curriculum.

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2.3 AI-Based Solutions

AI is applied in education in multiple ways and there have been numerous research and systems developed for education over the past two decades [7]. AI has been used to develop tutoring systems, assessments, and interactive systems.AI can personalize learning experiences and create entirely new educational and informative content. Generative AI is a machine that learns from existing data and uses that knowledge to create new content. Generative AI models are trained on massive amounts of data, like images or text. This data helps the AI model understand the underlying patterns and relationships within that data which is then used to create new content. Once trained, the AI can use its knowledge to create entirely new outputs that resemble the data it was trained on. For example, an AI model trained to create quizzes can generate new questions on a specific topic based on the student's prior responses. Generative AI and other new-age AI technologies enable us to think of personalized and targeted solutions that can put students on the trajectory to become high performers once they enter the workplace [11].

AI-based solutions can create industry/domain specific scenarios that will enable us to expose and reveal a candidate's strength and prescribe corrective actions [4]. The student is then subject to similar scenarios to measure and record the progress. The premise of this article is to develop methods to set graduates on the trajectory to high performance while in college for a specific industry, domain, and role. This will reduce organization costs to create large-scale training programs and improve the employability of graduates. From this point on, the article uses the term 'student readiness' to depict students who are on the trajectory of high performance. It is important to understand the term 'student readiness' at a more holistic level since university curriculums are periodically revised to impart the latest knowledge and skills. The argument here is that 'student readiness' stretches beyond the knowledge imparted by the curriculum. The question that arises is about the constituent elements of 'student readiness'.

3 DIMENSIONS OF THE PROBLEM

The term employability or industry readiness is intermittently explicitly and clearly defined. There are several definitions implicit in the literature for this term. In all cases, the core notion relates to the propensity of students to obtain a job. It comprises demonstrable skills, behaviors, and traits deemed valuable by the employer. Therefore, the objective is to instill the skills and behaviors in a student before graduation. It is important to understand the dimensions or spread of the objective to enable us to develop a solution. Employers often look for certain behaviors and traits in new graduates. Fig. 1 is an illustration of the problem where employer expectation or industry readiness is expressed as a combination of adeptness and adaptability. This illustration is adapted from the employee capability maturity model [20] to apply to new graduates. Adeptness is primarily knowledge and skills which is directly acquired from the learning curriculum. Adaptability is the readiness of the graduate to learn new technologies, understand,

communicate effectively with peers & adapt to changing business scenarios. The urge to continuously learn, improve, and innovate is associated with adaptability. In Fig. 1, there are four distinct regions. A graduate from a college program will have partial knowledge or skill of the competencies that are required to perform at the highest levels in the workplace. This is indicated by low adeptness leaning towards the left of the adeptness axis. The reason for low adeptness for new graduates is that every organization will have a unique way of applying knowledge to create products or services and this is mostly acquired by the graduate on the job floor.

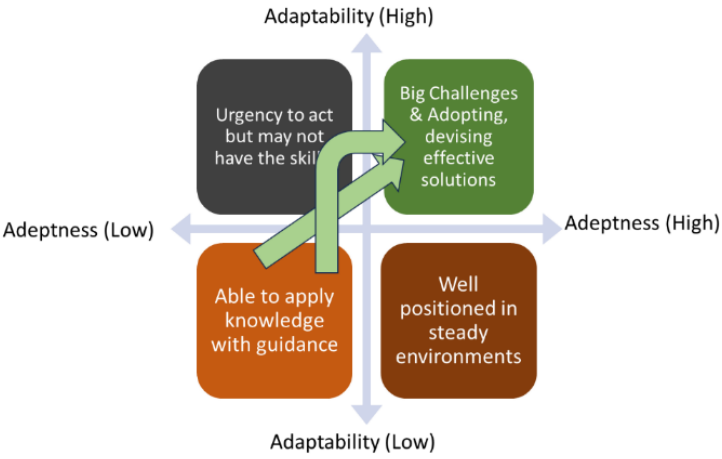

Fig. 1. Employer Expectation Matrix

A typical college graduate will take time to reach high levels of adaptability as adaptability is acquired over time by understanding and adjusting to the expectations of the employer. A college graduate starts from lower levels of adaptability and reaches higher levels over a period. Hence the transition of a graduate to a high performer characterized by high adeptness and high adaptability is a gradual, steady process indicated by the arrows in Fig. 1 as the application of knowledge and adaptability is heavily influenced and acquired through interaction and experiences. A new college graduate typically starts from the orange region which is bottom left shown in Fig. 1. The transition to a high performing employee indicated by the green box on the upper right in Fig. 1 is not a deterministic process as the path highly varies from person to person and is influenced by many factors such as the skill level of the student at the time of graduation, ability to learn & adapt and mindset. Therefore, much of the journey to becoming a highly productive employee happens outside of college in typical scenarios. This is the reason large employers conduct long training programs when they recruit college graduates. The goal of a specific training program for new graduates is to set the employee on the trajectory from the lower left region to the upper right region in Fig. 1. The training program only sets the employee on the path to the green region. The journey time on the trajectory varies from employee to employee. Employers are constantly seeking ways to shrink or reduce this journey time due to rapidly changing business

environments and the need for recruits to operate at the highest levels in the least amount of time and low cost. Conventional college education is focused on imparting knowledge and some amount of skill which is only one component in creating high-performing employees. Employers are expecting graduates to transition to the green region on Fig. 1 in the least amount of time. This will imply that college education programs prepare students rigorously to understand and acquire the characteristics and traits of a high-performing employee. This requires educational institutions to put students on the trajectory to the green region in Fig. 1 which is currently done by employer training programs. The green arrows in Fig. 1 indicate the learning or growth trajectory and henceforth in this article, the term learning trajectory indicates the path or progress of a student towards high adaptability and high adeptness which makes an employee a high performer. Creating a common training program for all students in college may not yield results as every organization will have its practices of applying knowledge to create products & services. Hence the transition towards the high-performance area is highly time-variant and is dependent on a variety of factors such as the learning capability of the student, industry domain, job role, social background of the student, and others. For the above reasons, equipping students with the skills needed by employers is a complex problem that is highly challenging to be addressed in a classroom setting. This adds more brevity to the solution being proposed herein as the goal of this paper is to devise a system to ensure that a graduate is on the trajectory at the time of entry at the workplace.

4 STUDENT READINESS

'Student Readiness' is a function of several attributes that stretch beyond knowledge and skill that contribute to making a graduate ready for the workplace [5,6]. This can be termed as a complex integration of several attributes over a period. It is labeled as complex as the combination of these attributes is highly nonlinear as it will vary from student to student. The effort to prepare any two students for the workplace may vary drastically. Some students may have a higher business mindset due to family background or special interests. Similarly, some students may be better communicators, or some students will need longer training periods to develop a certain attribute to reach the desired 'student readiness' levels. In conventional college programs, knowledge and skill are the focus areas and all students take a linear path on this attribute as the college program is designed to impart knowledge in a structured fashion. The classroom setting has this implicit assumption that the effort required to equip learners on a task will not vary drastically from learner to learner. This may not apply to attributes such as communication, problem-solving skills, business mindset and emotional maturity as conventional programs do not emphasize these skills and students will be at varying levels on each of these attributes. The time on the learning trajectory varies considerably from learner to learner depending on a variety of internal and external factors. Hence it is very difficult to design a classroom program to impart these attributes. It is very important to understand the constituent elements of 'student readiness' to devise

a mechanism or method to set students on the preparedness trajectory. Fig. 2 highlights the key elements of 'student readiness' that are identified in prior research [5,6].

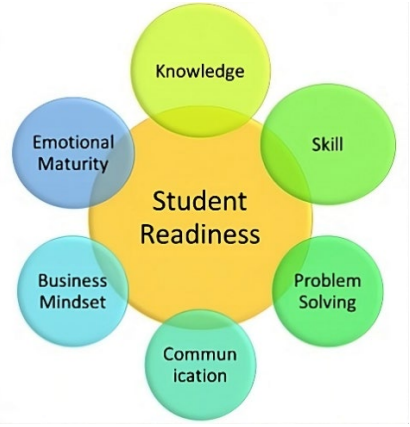

Fig. 2. Student Readiness Attributes

Student readiness for employment is a complex amalgamation of knowledge, skill, problem-solving skills, communication skills, business mindset, and emotional maturity. Knowledge and skill are better understood by academicians as the curriculum focuses on disseminating knowledge and enabling the student to apply the knowledge to acquire the skill. Problem-solving skills have been emphasized in education programs in recent times through competitions and challenge programs. Many universities and colleges have acknowledged the need for students to acquire all the readiness skills and conduct several programs to create awareness in students about these skills. The difficulty here is determining the effectiveness of these programs as it is uncertain how effective these programs are in increasing the competency of the learners. The required proportion of each of these attributes will vary depending on the job role and the domain. An ideal skill-imparting system should take the student on the learning trajectory, measure his progress periodically and guide them toward the desired destination point. The effort and time required for two students on the learning trajectory between any two discrete points can vary drastically. Hence a different approach is required to move the students on this trajectory.

5 ADAPTIVE TESTING

This section describes the adaptive testing theory and methodology which is the central element of the proposed system. Subsequently, the system will all its constituents for developing a student to attain industry readiness is described.

5.1 Adaptive Testing Method

The goal of this article is to propose a method to improve the attributes of industry readiness in a student through a personalized approach. The proposed method is based on adaptive testing methods and theories associated with it [3]. CAT is the redesign of

psychological and educational tests for effective and efficient administration by interactive computers [10]. Its objective is to select, for each examinee, the set of test questions that simultaneously most effectively and efficiently measure that person on the trait. CAT builds on and improves upon Binet's implementation of adaptive testing by replacing the human administrator with a computer program. Test items are displayed on the monitor and the examinee interacts with the test either through a keyboard or mouse. Early approaches to CAT were based on variations of Binet's approach [22] or other branched approaches that are based on different ways of structuring an item bank. Within a CAT environment, item selection and ability estimation occur in real time. As a result, computer algorithms must perform the roles of both test specialists and psychometricians. Because the test adapts to the examinee, the task of item selection and ability estimation is significantly harder. In other words, procedures are needed to solve a very complex measurement problem. These procedures must at the same time be robust enough to be relied upon with little or no human intervention. When designing a CAT, a test developer must decide how initial and interim ability estimates will be calculated, how items will be selected based on those estimates, and how the final ability estimate will be derived. The intuitive principle underlying adaptive testing is that a test has better measurement properties if the difficulties of its items match the ability of the examinee. Items that are too easy or difficult have predictable responses and cannot provide much information about the ability of the examinee.

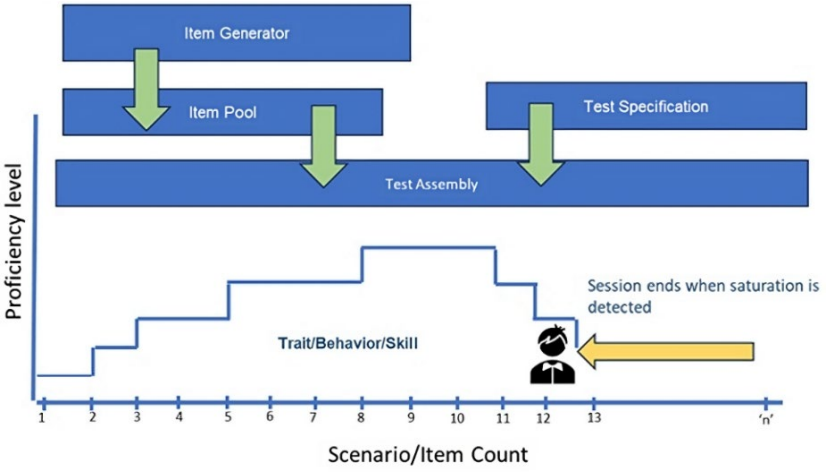

Fig. 3. Student Readiness Evaluation based on CAT

Fig. 3 illustrates an automated test system based on CAT. Each test administered to a learner is assembled from an item pool based on test criteria specified by the learner's progress and required proficiency level on a subject/skill. The test terminates when saturation in learning progress is detected. When the dimensions measured by a test are correlated, responses to items measuring one dimension provide clues about the examinee's standing along other dimensions. An examinee exhibiting a high-level vocabulary proficiency is likely to exhibit a similarly high level of reading comprehension and

vice versa [10]. Knowledge of the magnitude of the association between the dimensions in the population of interest in addition to the individual's performance levels can add a unique source of information and if used properly can lead to a more precise estimate of proficiencies.

5.2 Readiness Progression

Switching a testing program from a linear to an adaptive format increases its efficiency considerably as described herein. The gain in efficiency can be used to shorten the length of the test or increase the accuracy of the scores [3]. The gain is especially relevant to testing programs in which a battery of tests must be administered in a single session, but the testing time must remain feasible. The CAT method for 'student readiness' involves designing a test to assess the level of a student and suggesting corrective actions for the student. The test is repeated after an interval and the corrective action is followed. Thus, the CAT is administered in a series guiding a student to a desired level. This approach is illustrated in Fig. 4. The advantage of this approach is that this is specific to a student and CAT treats every student on their merit. The learner fatigue is very low and results in targeted outcomes.

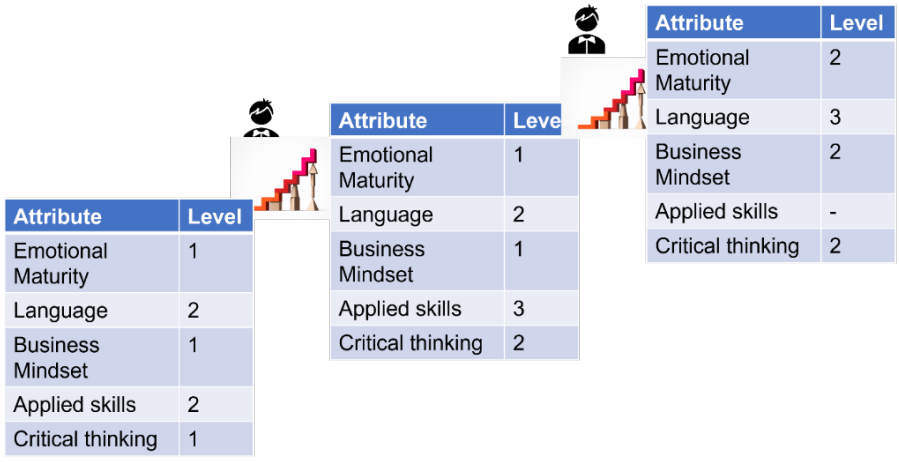

Fig. 4. CAT to Improve Student Preparedness

The preparation of the student to reach the desired readiness level before the job starts from the pre-final year and the progression to the desired level is a combination of tests and guided training to close the gap identified in each CAT. Fig. 4 illustrates the path of students to the desired preparedness level. In the first test, the student is evaluated on each readiness attribute for a specific job role. The level is determined, and the system identifies the skill gaps and recommends intervention steps with respect to the desired preparedness level. The ladder in Fig. 4 indicates the training plan to close the gaps and the assessment is redone after an interval and the same process continues till

the student reaches the desired point. The distinguishing aspect of this system is that the period between two assessments, the gap identification process, and the test by itself is created based on the student's performance dynamically and it will not be the same for any two students. This highly removes monotony in typical training programs which have the implicit assumption that all learners take the same path to reach the desired level.

6 ADAPTIVE TESTING

The system described in the previous section is highly tailored for a student. The gap in the conventional methods is the inability or rather difficulty to create personalized plans. Creating personalized plans at a human level is a highly effort-intensive and daunting task. Generative AI presents itself as a powerful tool to bridge this gap and enhance 'student readiness' in college graduates. Generative AI, a subfield of artificial intelligence, focuses on creating new content, like text, code, or images. This technology can be harnessed to develop personalized learning experiences for graduates in the context of student readiness. Imagine an AI platform that analyzes a graduate's coursework and career aspirations. Using this data, the platform can generate customized mock interviews tailored to the specific industry and role the graduate is targeting. The AI can simulate real-world interview scenarios, provide feedback on communication style, body language, and responses. Furthermore, generative AI can create interactive simulations that expose graduates to real-world work situations. This could involve simulations of team meetings, client presentations, or navigating ethical dilemmas commonly faced in their chosen field. By practicing these scenarios in a virtual environment, graduates can develop critical thinking, problem-solving, and decision-making skills essential for workplace success.

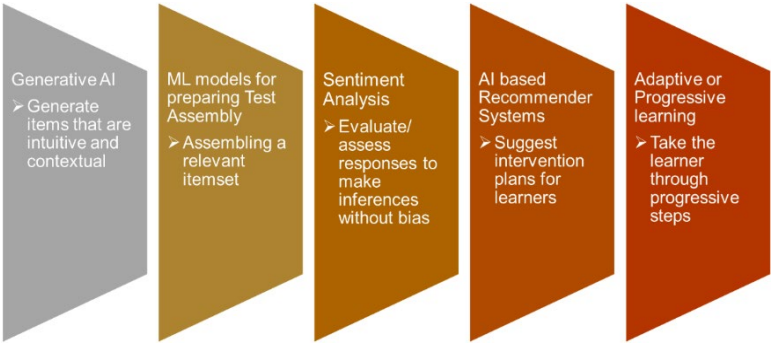

Fig. 5. Technology Elements of CAT-based Student Preparedness System

The benefits extend beyond skill development. Generative AI can be used to create personalized career roadmaps for graduates. By analyzing job market trends and the graduate's skill set, the AI can recommend relevant certifications, online courses, or volunteer opportunities that bridge skill gaps and enhance employability. Imagine an

AI platform that analyzes a graduate's degree, coursework, and career aspirations. Using this data, the platform can generate customized mock interviews tailored to the specific industry and role the graduate is targeting. By practicing these scenarios in a safe, virtual environment, graduates can develop critical thinking, problem-solving, and decision-making skills essential for workplace success. The benefits extend beyond skill development. Fig. 5 presents the different technological elements in the proposed system where AI is used extensively to generate questions, prepares a test sequence for a student based on prior data, analyzes results, recommends an action plan for the student based on results, and plans the progression cycle to place the student at the desired level in a stipulated time.

7 DISCUSSION

Preparing college graduates to meet the employer's expectations has been an active research topic over the past decade. There has been significant emphasis on curriculum development and instructional methods in colleges to improve the skills of graduating students. Despite the efforts, the perceived expectation gap from employers is still high as indicated in several reports [15,19]. Surveys highlight two major development areas where one being soft skills and the other being the learning ability of the new graduates. Soft skills broadly comprise leadership, interpersonal organizational, and team skills. The learning ability of the new graduates likely alludes to their willingness and agility to learn. This can be attributed to fast-changing technological advancements and business challenges. The problem is evident, and the reality has been that it is implausible or rather impractical to address all the challenges in the curriculum as the attributes for employment vary across companies and industry domains as explained in earlier sections. Hence there is a need to develop addendum modules to prepare graduates for specific careers.

Newer approaches like CAT and AI technologies open possibilities to develop novel approaches to solve these challenges. CAT as a method has demonstrated high outcomes, particularly in developing specific competencies. There are vast amounts of experimental studies demonstrating the effectiveness of CAT methods. The difficulty in implementing CAT in improving industry readiness is the generation of an item set or questionnaire that resembles the scenario at the workplace for a specific role. Analysis of the adaptive test results and recommending a student-specific improvement plan is highly resource-intensive. AI technologies, particularly Generative AI, are ideal candidate technologies to realize this system. Items or questions can be generated dynamically to maneuver a student along a desired trajectory. Recommender systems enable the creation of intervention plans specific to a student. Research studies show that technology-assisted systems can increase student's learning motivation [8]. Learning engagement and learning outcomes are two indicators of learning motivation. Field results demonstrate that learning engagement and learning outcomes increased in technology-assisted classrooms specifically where students displayed some level of learning motivation. This could likely be because technology could not influence students

who lacked any motivation. In other words, technology-assisted systems enhance the performance of students who display a medium level of interest.

The proposed system is based on the premise that the industry readiness of a student displaying partial interest can be significantly enhanced through a technology-assisted system. There is substantial evidence to show the feasibility and ability of the system to yield the stated outcomes as validated by prior studies stated herein. The contribution of this article is to outline, develop, and detail an end-to-end system to enhance industry readiness. The paper depicts the journey of a learner through the system over a period and shows how the system bridges the gap. The strength of the system lies in its ability to evolve and improve as it trains more students and the ability of the system to deliver targeted outcomes without learner fatigue in the quickest possible time. The system is flexible to work in any domain once the system learns to generate questions and provides recommendations to the learner. The system will not work where the learner is highly disengaged and in cases of academic dishonesty.

8 CONCLUSION

An effective industry readiness system is created through a curriculum tailored to practical applications and a personalized approach that positions each student along their readiness journey. The applied curriculum combines essential work competencies with pedagogical approaches to engage learners. Tailoring career placement strategies to each student's role and industry domain is essential due to varying employer expectations. This paper investigated the ability of AI-driven CAT to identify and fill employment readiness gaps in students. The method identifies areas for improvement based on student performance data and proposes tailored learning materials. By adopting a targeted approach, students are better prepared for the job market and require less training when they are hired from college. In this paper, a system is developed to bridge skill deficiencies for a particular job function. By identifying skill gaps through technology, students can fully attain their potential and succeed in their careers.

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