Workforce and Gen Z Training in 2024

On Sunday, February 25, 2024, the **Training 2024 Conference** conducted the first LIVE presentation of the *e-learning Generative AI Prompt-Off*. Three international experts in AI were given the task of creating from scratch a training tutorial on a given topic, programming the narrative, visual aids and audio, and building it within a twenty-minute period. The timeline was broken into three components – the narrative, the images and the visual aids, followed by audio, including internationally toned voices in English, of both genders. All of these tasks were displayed to the group via a ten-foot-wide screen, displaying their script and coding, cut n' paste, selection in voice, background music, and the intro/conclusion tones. At the end of each segment, the expert designers described their response to the task; the audience was able to observe these, step-by-step, in preparation for trying them at home. The end product confirms that AI is here for training and building instruction for the Gen Z population. The know-how from these demonstrations has planted the seed of these trends in every industry. Excitedly, the medical, health care and financial fields are implementing AI in their training, bridging the gaps of Gen Z's expectations for their training.

Previously, we have been oriented to focus on Need-to-Know and content-driven education, without practice or interactive components. The formats and techniques to capture and transmit content in a "Need-to-Know" and a "Need-to-Do" format for Gen Z's is requiring ALL industries that use training in their organizations, to face these updates and changes, in order to meet the cognitive needs of the learner. A new *Learner's Bill of Rights* is dictating these changes, with the post-COVID awareness of contemporary requirements. The adjustments and changes in the workforce from Baby Boomers to Gen Z's will mean renovating traditional training to meet the needs of Gen Z, converting the content to include new and robust visual aids, transforming the text and content to a more narrative presentation for the learner, and including expanded images of diversity. The learning process is changing to reflect more "To Do"… and "Need-to-Do". At the end of the day, training innovations require knowledge, motivation, practices, and obstacles in their design. And the type of training is becoming more detailed! Certification Training, Continuing Education Training, and now, a separate non-credit category – Cultural Training, which includes policies and procedures, organizational history and orientations, along with all the Do's and Don'ts.

Today's environment for Gen Z training is universally short and to-the-point. The next generation learner is very fast to say, "Do Not Waste my time." The new workforce is requiring content that is available on demand, at any time, night or day. Training Providers, Instructional Designers (ID) and Content Developers must focus on using their skills to present details and facts… Gen Z tells us… "Do Not Lie to Me." Sadly, their trust is vital.

In the Gen Z world, for designing content and transmittable delivery, the norm is "do it now." Various industries involved in training are experimenting with the interface of student-to-virtual AI. The predictions for 2030 are of a totally different environment for training. The instructional course design components are becoming the mainstream in the e-learning delivery system. We have seen the decrease and cancellation of classroom training; in fact, the classroom instructor pool has nearly vanished. The restrictions to online e-learning over the years have decreased to a very few.   The use of blended learning has increased and proven to be successful.

Blended Learning offers multiple arrangements to enhance and relay content. From assessments, orientation, and transmittable delivery, the learner is exposed to multiple techniques from the "pre" stage, to initial assessment and further, into the classroom and e-learning formats. The customizable training content is divided into re-usable modules for future learners and continuing education.

Training has become a three-tier approach – program:

- **Certification** – standards methods and procedures for professional licensure

- **Continuing Education** – updates to rules & regulations, process control, as well as emerging technologies
- **Cultural Training** – also referred to On-the-Job Training - workforce orientation, policies and procedures, organizational history, and equipment

A common misconception in training/continuing education is to ignore the exciting side of training, that is, to update learners with the latest and greatest. Certification training is, OR should be based upon the standards of the Need-to-Know and not the latest emerging processes, whereas, continuing education pertains to the "Need-to-Do" criteria. With this being said, the new workforce, the new Gen Z population, requires a different mindset in the transmission of content; most importantly in the cognitive aspects of retainage. In the environmental field, plant operations are increasing their operations with SCADA. AI is next, in meeting the demand for quality replacements in the workforce. It will be very interesting to see the results, as of 2030.

The breakdown in training formats, according to the classification, provides the elements of certification or continuing education, which are both tracked and monitored at this time. The new addition of cultural training, also known as On-the-Job Training, is mostly non-credit, and is not tracked. As we enter the total renovation of the workforce – training, the effort to develop custom, relevant, and specific training for the operations within your state will become a consideration, for the value it brings. Developing content to meet your local criteria is a major decision, due to the time and expense required to develop effective programs. Yes, you can contract or sub your requirements to others; however, I ask you – what value does this bring to the learner? As facilities are different, how can we design a general – generic -- procedure to meet specific needs? Orienting and certifying require a custom approach for greater accuracy. Gen Z is going to question and challenge our efforts, so we must prepare to detail the content, in order to gain their trust. I know this from personal experience. I have a Gen Z'er and their learning process and habits include questioning the content; they prefer to 'cut to the chase' and get to the nuts-and-bolts… and again, we hear "Do Not Waste My Time…." I truly believe this quote could become a best seller in a T-shirt for Gen-Z.

The truly futuristic aspect for training is AI, and we do not know one millionth of the possible cognitive increases to take place in the "human" workplace. Current AI content design studies are ongoing in the medical, financial, and public health arenas, and more are blossoming as the year moves forward. The interplay between learner and AI is providing test data in the retention of information and its effects on the learner. Assessments are still too early to standardize on the potential of AI for many fields. I remember, 20 years ago, as I was developing techniques in the water/wastewater industry for streaming content in continuing education, I observed how the medical field was miles ahead of anyone else. I have always admired the medical industry and their pioneering of surgery procedures. Sadly, the environmental domain has always been at the bottom of the barrel in the employment of advanced studies in training. For a 71-year-old, the techniques have really changed, and this in a good way, meaning mankind has made great advancements. The days may be remembered, where a slide tray and overhead projector were the standard tools for training and presentations. Existing techniques will always be popular with the Baby Boomer crowd; however, time management and process decisions need to be in fresh stages of development… The "Need-to-Do" Rule.

The saturation of AI and its compatibility with SOP and existing operating systems, as well as some technical concerns, should be resolved in the coming months and years. In my introduction, I mentioned the conference demonstration of creating an AI training course and the accuracy it provided. AI tools can speed up the creation of the scenarios and the learner's profile for training. The concept of role-playing scenarios has enhanced training in so many ways; however, the testing is ongoing. Some results have been successful in simulating traumatic medical conditions and developing their solutions. Presenting in multiple languages and personae of any gender or culture, the developmental world has endless potentials for the Gen Z workforce. The imagery, audio, visual aids, and storytelling available via AI equal a learner's desire for referencing smartphone information for training and resources. AI is modeling itself to meet the future demand for quality replacements in the workforce. It will be very interesting to see the results, as of 2030.

In summarizing the latest in emerging educational tools available to instructional designers, it is rewarding to know, that as the "Shit hits the Fan," Mother Nature did not let us down! As we progress, post COVID, we are developing new training standards to address the new skill set requirements and determining how to introduce the Need-to-Do criteria to the new workforce. AI is something to consider. In a recent study by Stanford, MIT, and Harvard, in analyzing some of the initial AI designed training for call centers, the study evaluated 5,000 responses and found a 14% improvement in presentation-to-comprehension time, using the AI version of e-learning, as compared to the standard classroom methods. In the instructional design aspects of training, studies have found a two to ten times reduction in production time, via AI. The improved visual aids will also enhance the learning process in these virtual learning platforms. Now are the time and the opportunity to make crucial decisions in the methodology of training. How can the approach of yesteryear satisfy the workforce of the future? The digital world of Gen-Z requires and responds to e-learning, with its ability to offer scheduling-on-demand, as well as the chance to review and repeat lessons at will. The potential enhancements of AI to this process add to its appeal for youth and to its practical value for trainers. Let's not disappoint the future!

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About Us

CEU Plan is the foremost provider of quality online training and continuing education for the water and wastewater industries throughout North America and the cyber world. Our goal is to provide the best in practical, up-to-date, affordable computer-based training for operators and other professionals dedicated to drinking water and wastewater regulation and facilities. The content of CEU Plan courses is designed to enhance, inform, and renew techniques and practices used in the day-to-day operation of environmental facilities.

In the 1990's CEU Plan pioneered in the field of online training, developing the first text based online course for environmental education as a means to assist the Vietnam Vet Apprenticeship Training Program. Since then, our interest in creating a better training environment has increased and persisted in the development of the first streaming video and virtual plant tour for distance education, in the water and wastewater industry. During 2023, we developed and updated our LMS (Learning Management System) to stay abreast of the ever-changing internet technology. We are finalizing the beta testing and evaluating the results of this process. CEU Plan has developed authentic blueprint and programming, allowing us to make your state course approval code numbers immediately available on our website and on your certificate of completion, smoothing and clarifying the learner's enrollment process. We are always striving to meet the challenges in browser uploads, and are standardizing a format to enhance the delivery and reporting of CEUs in a timely matter.

We have been recognized for over twenty-five years as leaders and innovators in online education and training programs in public health -- the water and wastewater treatment fields -- including collections and distribution, process and control, laboratory practices and safety, and the fundamental aspects of utility operation, maintenance, and management. Our Instructor Group consists of highly experienced individuals with a minimum of 15 years of experience in their areas of expertise. As a whole, our faculty offers over fifteen hundred years of combined experience.

CEU Plan is one of the original environmental training organizations to become accredited through IACET, through meeting the ANSI/IACET Standards 1-2018 for continuing education training. To receive accreditation, CEU Plan completed a rigorous application process, including a review by an IACET site visitor, and successfully demonstrated adherence to the ANSI/IACET standard, addressing the design, development, administration, and evaluation of its educational programs. IACET performs an audit every five years of each training provider for compliance and adherence to the ANSI/IACET Standard. **CEU Plan's** accreditation number is: 5451810-3, which expires on January 31,2027.