

# **Ethics and AI**

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MAUREEN MCGUIRE-KULETZ: OK, so let me introduce D4. Rob Froehlich, Dr. Nichole Tichy, who are going to be talking to us today about ethics and artificial intelligence. I'll turn it over to them.

ROB FROEHLICH: OK, wonderful. So I have to be honest with you. When I found out that Dr. Tichy and I were going to be speaking right after Linda Hedenblad and on a 3:00 PM Eastern on a Friday, and on the topic of ethics and AI, I said, are you kidding me?

Well, thankfully, we have some continuing CRC credits in ethics, which are always desirable to people. So I'm glad that some of you have stuck around to hear us speak. And we're really glad that you're all with us today. So artificial intelligence has the potential to really change the ways we think about information gathering and provision. And this has a huge potential to impact the way that we work within vocational rehabilitation and within counseling, also. So we're here to talk about some ethical considerations as they relate to that topic today.

So-- just one second OK. So we feel it's really important to start out letting hey, why are we OK people to speak to this topic. So I am an Associate Professor of Counseling at George Washington University. And I've been teaching ethics for more than 20 years at this point. I do have the distinction of being the previous Chair of the CRC Ethics Committee, and served on the Revision Task Force when the code was updated in 2023.

Now, so while I say all of that, I'm speaking on behalf today, of myself. This is not in any kind of official CRCC capacity, but just based upon some of my own research and experiences. And I'm happy to share that with you, too. Additionally, I provide some counseling and psychotherapy services in a private counseling practice. And I've used that lens, too when we pulled together the materials to think about today. So my wonderful co-presenter, Dr. Nichole Tichy, want to talk a little bit about yourself, too?

NICHOLE TICHY: Sure. Hi, everybody. As Dr. Froehlich mentioned, my name is Dr. Nichole Tichy. As terms of why I should be here, my experiences are not as vast as his. But I do have experience teaching ethics. I've presented on this topic numerous times. And so I'm continuously learning, especially about artificial intelligence.

I actually have recently completed a certification in machine learning. So my knowledge is vastly growing as more information and as more things continue to be developed in this arena. I am a current member of the CRCC Ethics Committee. And so as he mentioned, this is, again our own interpretations. These are our own opinions and our own findings. They're not on behalf of the CRCC. And so we really just want to make sure that is front and center in terms of our presentation. That's a bit about me.

ROB FROEHLICH: OK, so today in terms of learning objectives, we have three. The first is for you all to understand ethical principles in artificial intelligence for vocational rehabilitation, broadly. So we're going to identify some key ethical considerations surrounding the use of AI and vocational rehabilitation, including topics such as privacy, informed consent, bias mitigation, and data security.

We are also going to evaluate the impact of AI on the consumer-client relationship. We're going to analyze how AI-driven tools can influence decision making, client autonomy, and equitable access to services while maintaining professional integrity and ethical counseling practices. And then finally, we're going to apply ethical decision-making frameworks to artificial intelligence integration.

We're going to talk about developing strategies for responsibly incorporating AI technologies into vocational rehabilitation practices, ensuring compliance with ethical standards and legal regulations, and promoting positive client outcomes. So what we're going to talk about are some ethics basics, then move on to some information relating to artificial intelligence basics, and then apply the two at the end.

And I have to be fully transparent here. Dr Tichy knows a great deal more about artificial intelligence than I ever will, or probably even have the interest in finding. But we're going to bring all of it together today to speak to our topic assigned.

So we are going to be talking about both the-- the majority of our presentation is going to focus on speaking to the CRC code of ethics, but we will also make mention of some considerations regarding the American Counseling Association, too.

Now, in previous years, I've have the honor to present to you and review the 2023 code revisions, and also had the opportunity to direct people to the special issue of the Rehabilitation Counseling bulletin, sharing greater detail on the revisions. Today we're going to highlight some of the sections that relate to artificial intelligence. And we'll also be making mention of some considerations relative to the American Counseling Association. So let's get started, shall we?

Some of the relevant sections of the code include-- starting with confidentiality, privileged communication, and privacy. So artificial intelligence has the capacity to generate vast amounts of information, to generate ideas, concepts. But it also requires the sharing of some data that may impact clients confidentiality. So we want to draw your attention to that section.

And when you're thinking about using artificial intelligence, you want to direct yourself back to looking at the code. And what is does specifically say relating to confidentiality, privacy? Any of those areas are going to be important for you to consider.

Now, section E of the code looks at professional responsibility. And it's broken down into various different subsections. But the first I'd like to talk about with you is boundaries of competence. So as you can imagine, that implies we're only going to practice within the boundaries of what we know and what we understand. Another area is looking at new specialty areas of practice.

So we're only going to use new approaches after we've had appropriate consultation, education, training and supervised experience. So it's an emerging topic. So an important part is for you to get that continuing education, like you're doing today, on new and emerging topics.

You're going to clearly avoid anything that would be harmful. Don't do anything that's going to harm somebody. That seems to go without saying, but things don't always go without saying, so we want you to keep that in mind, too. We also want you to think about Section K of the CRC code of ethics that speaks to technology, social media, and virtual counseling.

So we're not going to use any kind of technology that we don't understand as it pertains to our competency and legal considerations. We're going to make sure that what we use adheres to Section K2, accessibility. We're going to make sure that any kind of technology that we use is accessible to everybody because if we can't access it, what use is it?

And we're going to think about confidentiality and disclosure. We're going to think about, where those tools that you use, where does the data go? And to whom? And how can you ensure that it doesn't identify your client in a way that your client's privacy is impacted? And then we're also going to drive you to section M of the code, which is the resolving ethical issues.

So this is looking at your knowledge of ethical standards and law. It's looking at behaviors when addressing suspected violations. And it is looking at your conduct in addressing ethical issues like participating with any kind of inquiry process, and overall, following the code. So section M is really that piece of the, what do I do with all the stuff that preceded this in the code? How do I apply that?

So again, on this area of, what do I do with all that information that precedes in the code? Ethical decision making is the process of evaluating and choosing among alternatives in a manner that's consistent with ethical principles. It involves recognizing and analyzing ethical dilemmas, applying professional and moral standards, and selecting actions that align with values.

And the whole reason of using ethical decision making and ethical decision-making models are to ensure that the well-being of clients is prioritized while adhering to the legal and organizational guidelines. So it's looking out for the best interests of the client while also adhering all of those ethical, legal, and programmatic organizational guidelines. For your interest, too, examples of ethical decision making models can be found on the CRC website, if you're looking to enhance education in that particular area.

So in terms of professional responsibility, in section E, it's important to remember that the code can't always address emerging topics. Remember, codes are broad in general for lots of different necessary reasons, but one big one being that the code needs to apply in the broadest and highest number of situations that make sense. Right? So it's got to be a broad document.

But it also is a snapshot relative to the time in which the code was developed. Things emerge and move forward on their own timeline. So it's your responsibility to remain up to date on emerging themes.

Now, it can be argued that some forms of artificial intelligence, more basic ones, have existed for quite a period of time. But the prevalence and usage of AI has changed even since 2023, when the code was revised. So just remember, when anything emerges and changes, it's really your responsibility to remain educated, find sources of information as they pertain, and also superimpose that change and the information that you found back on the code to make sure that you are moving forward in an ethical manner.

So while you're staying up to date and researching these emerging trends, don't forget to apply the general principles, that are the foundation of the code, to that topic. So for instance, regarding artificial intelligence, you want to think about, how does artificial intelligence and my usage of artificial intelligence impact client's autonomy? Their right to be self-governing within their own social and cultural framework?

You want to think about, how does this choice to use artificial intelligence impact beneficence? That doing good to others? Promoting the well-being of clients? You want to think about, how does it impact fidelity? To be faithful and keep promises and honor the trust placed in CRCs?

You want to think-- and this is an important one, too-- about justice, being fair in the treatment of all clients, to provide appropriate services to all. And does artificial intelligence or my use of, or my choice of a tool, in terms of artificial intelligence, how does that impact justice? How does it impact this concept, my favorite one, non-maleficence-- super fun to say-- to do no harm to others?

And then finally, you want to think about, how does it impact veracity? That concept of being honest and truthful. So that's your real quick review and steps through looking at general ethical principles.

But we're going to move on, now that we've talked about decision-making tools and done a real quick refresh on ethics basics, let's move on to the next topic. So Dr. Tichy, if I were to ask you, what is artificial intelligence? Would you mind sharing some information with us?

NICHOLE TICHY: Sure. And I will do my best because the answer to that is quite complex. And so we definitely do not have enough time today to fully talk about and address, what is artificial intelligence? So I will do my best. I'm also not the content expert here. There are folks who are far more qualified. But I have enough information to be dangerous. But basically--

ROB FROEHLICH: If I could just interrupt for a second, I think you might be selling yourself a little short. But anyway, go ahead.

NICHOLE TICHY: Well, thank you. I appreciate that. But in a nutshell, artificial intelligence is considered a branch of computer science that focuses on creating those systems that are capable of performing tasks that typically require human intelligence. And so when we're thinking about some of these tasks, it's usually learning, reasoning, problem solving, perception, decision making. But ultimately, artificial intelligence, it's basically math.

So these platforms that we'll talk about in a little bit, they're basically using a series of linear regressions that are based on millions and billions of data points. And they're using these different patterns to predict the next piece of relevant information based on that series of inputs.

So these are very large data sets. It's not just, oh, I'm going to look at 10 websites. It's millions and billions of pieces. There are these giant servers that are collecting this information to be able to power some of these different types of platforms. If we can go to the next slide, we'll start to get a little bit more specific and use some more of the buzzwords. Right?

When we talk about artificial intelligence, we also talk about an aspect, which is machine learning. And basically, this enables systems to learn and improve from experiences without specifically being programmed. When we think about certain applications, there is a programming aspect to some of them. You might have heard of different programming languages like Python or C++ or Java. These are the platforms, and that's computer science, where different web-based pages or other applications are being programmed to specifically do something.

One of my favorite Python-related statements is, if this, then this. If this thing does something, I'm going to expect this kind of output. Machine learning goes a bit further than that. And so there are three different types of machine learning. The first one, which we'll talk about in a little bit more because this is the most common type of machine learning, is supervised learning. And basically, this is learning with answers.

This model is specifically trained on a labeled data set. Think of it like a student learning from a teacher who gives you both the questions and the correct answers. So the answers ahead of time, essentially. The next type is unsupervised learning. And this is learning without the answers. These types of models are often given unlabeled data.

And so you have to find the patterns or a structure on your own. So it's learning based on the information that's being provided. And so this could be like, exploring a new city without a map. And you're grouping and figuring out what looks similar. So you're making that justification.

And then finally, reinforcement learning. And this is learning by trial and error. Think of-- when we think of behavior therapy, positive and negative reinforcement. It gets rewards or penalties based on the actions, and then tries to maximize rewards over time. Think of training a dog. If it does something good, you give it a treat. If it does something you don't want it to do, it doesn't get a treat. And eventually, it learns a new behavior. So if we go to the next slide, we can talk a little bit more about that supervised learning.

So again, this is typically the most commonly used when it comes to machine learning. And so it uses labeled data to train algorithms to recognize patterns and predict outcomes with the goal to create a model that can predict future data. Again, this is math. You input x, you receive an output y.

One of the most commonly used methods or examples when it comes to supervised learning is the use of a spam filter. Everybody has a spam filter in their email. And sometimes there's a box that you have to check that says, yes, this is spam, no, this is not spam. That's a way of engaging and providing feedback for additional supervised learning. You're teaching the algorithm to recognize what is considered spam and what is not considered spam. So you're providing that continuous learning aspect for that model. Next slide, please.

As we get to more complicated pieces of machine learning and artificial intelligence, we talk about Natural Language Processing or NLPs. And this enables computers to understand, interpret, and generate human language. So this combines linguistics, machine learning, and deep learning to learn and process data in order to have text and speech.

And so there are some key steps when it comes to engaging or utilizing these NLPS. And so the first piece is understanding the text. And so this is really breaking it into smaller parts, removing any unnecessary words.

As we understand language, we include words such as "is," "the," "and." A computer doesn't necessarily need all of those words. And so in order to speed up the process essentially, those words get removed. And it also converts words to their most basic form in order for additional processing. So instead of using "running," for example, you would simplify that to just "run."

One of the next steps is analyzing that text, breaking it down even more. What is the difference between a noun, a verb, and an adjective? So understanding those different parts of speech in order to then move forward in processing. Detecting names, this is referred to often as name entity recognition, so understanding something like New York City as a place rather than just saying, New York City, being able to make those distinctions within the language.

And then utilizing a process-- this is getting a little complicated-- calling sentiment analysis, which then works to understand emotions. So as counselors, we know that there are key words to help us understand emotion or help us to pick up emotion. Somebody might use certain words to describe being happy. Somebody might use certain words or certain phrases to describe being sad. And so that understanding and those nuances within the language comes as part of analyzing that text.

Then we get into some of the more complicated pieces of learning to start processing meaning, predicting words based on patterns and understanding sentence structure and relationships. And this is when we start getting into the more complicated aspects of artificial intelligence and we get into those deep learning models.

And then finally, the final step is generating responses, so converting speech to text, so Siri, Google Assistant. I'm not going to say Amazon's because mine might start going off, and I definitely don't want her to start doing that in the middle of this. So those responses, or even using something like a text-to-speech for your phone, being able to use that, that system needs to understand what you're saying to then be able to convert it from your speech to written text.

And then we get to the more complicated and the more frequently known NLPs, such as ChatGPT, which generates human-like responses by analyzing the texts that you have input, and then taking all of the information across the internet to generate that human-like response.

OK, that was a lot of information. And so really, what the whole purpose of this is to really understand is that artificial intelligence is something that is extremely complex. It's learning language. It's learning human-like behaviors. And so by having that knowledge and this basic understanding of how it operates, we, as counselors, can then use that information to ethically involve it or decide not to involve it in our practices.

But the key piece is having that basic understanding of how it's operating in order to accurately incorporate it into our practices. And so with that, I'd like to go on to the next slide, to talk about some useful applications. And so these platforms and these tools are continuously being developed. AI and machine learning and deep learning are huge buzzwords right now, right?

Actually, artificial intelligence has been around since the 1950s. But we're now seeing applications of it into different types of fields. It's being used in medicine, it's being used in business practices. And we're seeing it being used in counseling. And so with that, it becomes really important to understand how it's being used, but also making sure that it's being used ethically.

And so one of the things that it's frequently used for is assessment and evaluation tools. And so sometimes, depending on the platform, these tools can be used to enhance assessment accuracy by analyzing complex data faster and more consistently than humans. And I say that because humans can reach a point of exhaustion. If you're looking at 700 people and compiling data from 700 responses or 700 evaluations, that can be exhausting compared to an AI tool that could do it in a few minutes.

However, there are caveats to that in terms of, where does the information go? How is it stored? What information are you inputting into the system? And how is it being tracked? So again, with these applications, while they can be useful and they are designed to help with productivity, there are some ethical concerns to them.

Another option is personalized vocational planning. There are tools that can recommend career paths and training programs based on abilities, interests, and limitations. Again, I'm going to go back to that use of an ethical decision-making model, and going through what's going to be beneficial and what's not going to be beneficial.

Assistive technology and accessibility-- there's a lot of information about the use of AI and AI-related tools for accessibility purposes, such as being able to use predictive typing or voice-control supports. Computer vision tools are a form that can be useful. But again, it goes back to considering that ethical decision-making model and making sure that the applications that you're using are going to meet the needs of your clients, and that you also have a working knowledge about the tools and the resources that you're suggesting.

This is probably the one that's starting to pop up a lot more, useful applications in terms of mental health and psycho-social support. We're seeing a lot more of these AI-generated chatbots or these text-to-speech or text messaging related counseling supports or even those apps that will provide resources based on an input. Right?

And so there are useful tools in terms of being able to find resources or even for individuals who are using these. One of the ones that I'm thinking of is-- there's a platform called Tess, T-E-S-S, that can provide AI-based emotional support, but then connect users to human therapists if possible. So there are some uses to it. If somebody doesn't know how to reach a therapist or somebody who doesn't know how to get in touch with a therapist or doesn't have access to being able to find a therapist, these tools can be helpful. But again, there are some limitations into their use.

And then finally, data-driven program evaluation-- AI, depending on the platform that's being used, can analyze large volumes of data to improve service outcomes and efficiency, and so being able to forecast dropout rates, for example, or being able to evaluate the success of different types of programs. Again, it's just making sure that there are those ethical considerations with regard to the use of these different types of platforms. And if we go to the next slide, we can start talking about some of the platforms.

So the most common types of platforms that we see are especially the smart assistants, Apple Intelligence, Google Assistant, Microsoft Copilot. These are often utilized to help with productivity, whether it's determining accessibility or-- I actually tested Microsoft Copilot the other day because I had never used it. And it gave me feedback on a presentation that I was working on. And it helped me to make sure that I was making sure that the message was clear. And so it gave me that feedback to make sure that the information was consistent with the objectives that I had determined, and it met my needs.

Other common ones are ChatGPT, Perplexity, Grammarly. These are forms of natural language-processing tools. And so they're giving you information, either inputting a question or supports like Grammarly or giving you feedback about how to improve writing. And so those are just some basics. I'm going to stop rambling now, and I'm going to pass it off, back to Dr. Froehlich, to summarize some of our ethical implications.

ROB FROEHLICH: I don't think you were rambling at all. That was helpful information. But what's important to remember is that any artificial intelligence application does not replace the professional and clinical judgment of the counselor. So no matter what we're using, no matter the tool, ultimately, you, the professional, are responsible for the conceptualization and the justification of why you're using AI.

What do you expect it to do? Have you considered what your client wishes are, relative to artificial intelligence? Have you considered confidentiality? Do you know how to use it?

So while AI can enhance service delivery, it's essential to address data and privacy and confidentiality. Where does the data go? And what impact might that have on my client? Algorithmic bias, another fun word to say, but basically, what algorithmic bias is, is does the tool generate errors that are systemic and repeatable, that create unfair outcomes? Does the tool create inequitable treatment of one group over another? That's an important thing for us to consider.

Client autonomy and the wishes of the client in terms of use of artificial intelligence, and then competence and professional usage of technology, again, do I know what it is that I'm using? What it's supposed to do? What the threats and limitations might be? And what the potential good outcomes can be?

So it's really important to remember, as we move into this next phase, it's not about replacing the counselor. It's about perhaps making the counselors job tasks, in some ways, simpler via using a tool. However, the really important caveat with that is, for the counselor to still use that professional and clinical judgment, to look at what's generated, to see if it makes sense. And if it doesn't make sense, if your clinical judgment is telling you it doesn't make sense, don't use it. Don't apply it.

So it's just some pondering thoughts. Just because something can be done, doesn't mean it should. Just because you can, perhaps simplify some tasks, if there's a big threat to it, doesn't mean you should do it.

I think a really important message that we want to share with folks is, don't be afraid, but proceed with caution. It's not all good, it's not all bad, just like anything. Just like any theory, any tool, any resource, it's not all good or all bad. We just have to make-- one of the reasons that we're hired to do what we do is for our professional judgment and our ability to use critical thinking that's informed by our education and professional experiences.

A really good analogy for where we are with AI, at least in my opinion, where we are with AI right now is, where we, as a field, have been and how we have developed secondary to social media. So I have been doing this long enough that when I would begin presentations relative to ethics and technology, it was a just say no, that type of a thing. But we've really evolved over time.

It's interesting. Dr. Tichy was just talking about some tools that can perhaps do some front-line screening and then connect people with a therapist. Back in the day, there was something called the Shrinky app. And the Shrinky app was something you would buy for like $10. And you would put it on your phone. And it was marketed as a pocket therapist, like, when you feel anxious, use Shrinky.

So you would type in something like, I feel worried about my career. And it would generate statements like, you're successful, don't forget to breathe, you are so smart. So don't use something that doesn't make sense, based upon your counsel.

Me just saying this now, there's a certain level of absurdity to that, right? So it doesn't go anywhere. It doesn't connect anyone. It doesn't truly do anything other than provide a few affirming statements. We wouldn't use anything like that with our clients. Why would we do that?

So make sure that you're using those kinds of thoughts that include the use of critical thinking and decision-making models to make a choice to use or to avoid. That's a really important part of ethical practice on this topic. So Dr. Tichy, is there any existing literature or are there resources on this topic?

NICHOLE TICHY: As a matter of fact, there are. So what I'm going to do now is, I'm going to go into-- there's three different articles that we have cited here, that talk about artificial intelligence in terms of mental health or in counseling. So this first one is more of a literature review, going through a timeline of how artificial intelligence started, but then moves into discussing AI's applications in psychiatric disorders, emotional regulation, diagnosis, and intervention while also addressing some of the ethical concerns.

And so it notes that AI has been around since the 1950s and has evolved over time. One quote from the paper that I really liked, "AI is an umbrella term that encompasses a wide range of approaches and techniques to develop computational systems which perform cognitive processes and tasks that are characteristic to humans."

The piece that I really latched on to, right there, was "characteristic to humans," not in place, of not instead of, that are characteristic. So just like we know that individual counselors have characteristics that make them unique, it's important to know that there are characteristics to different types of artificial intelligent platforms that make them useful or not useful, like Shrinky. Never even heard of that one, but like what Doctor Froehlich said, might not be useful. Those characteristics might not be useful.

And so really, what this paper was getting at was that noting that there are applications for mental health that are positive, that AI can improve awareness, diagnosis, and intervention strategies, and that technologies can analyze speech and text for mental health assessment, and that AI can enhance emotional well-being by recognizing and regulating emotions. However, it also goes into addressing those ethical concerns when it comes to utilization of these types of therapies or these types of interventions.

And so one of the things that I really gathered from reading this paper was, here are all the things that AI can do in terms of assisting with mental health. However, these are all the things that you should be aware of, so making sure that there is still that critical thinking ability, there is that input of clinical judgment from the professional, that you as a professional, if you're utilizing this type of platform or a type of platform, that you're going back and checking to make sure that the interventions or the diagnoses are accurate. Maybe the model learned incorrectly and it's providing you with information that doesn't make sense.

One of The key things that I often hear when it comes to developing and understanding these types of models is sometimes-- and this is why we need that human piece-- garbage in equals garbage out. There could be incorrect information that the models are learning from. It could be pulling from non peer-reviewed sources, such as social medias.

One of the cautionary tales that I often tell ethics students is learning about diagnosis from TikTok. Not all of that information is going to be accurate. And therefore, when a model is pulling from the throes of the internet and pulling from the cloud, some of that information is not always going to be accurate. Let's go to the next slide because this one actually gets into a study that was done.

So this one focused on a transformer-based machine learning model to evaluate conversational content and asynchronous text-based mental health counseling, specifically, the app called Talkspace and its association with clients. So this study used de-identified data from Talkspace covering sessions from 2014 to 2019, and looked at over 160,000 different types of clients with information from 4,973 licensed therapists, with over 20 million messages exchanged.

The whole purpose of this study and being able to pull this information was to understand the different types of therapist interventions. And so specifically, they looked at 54 different types of interventions, such as the use of empathy, the use of CBT-type techniques, reflective listening. And therapy sessions were then scored for indicators on these different types of interventions, and looked at client engagement, how long somebody stayed in therapy, client satisfaction, and then symptom improvement using PHQ-8 depression score.

And what they found was, that the therapist techniques matter. The individual aspects of the therapist is what mattered. Supportive counseling behaviors, such as complex reflections, open-ended questions, and affirmations were positively correlated with higher engagement, greater satisfaction, and improved screening scores, whereas things like overuse of information giving and structure and too much of a specific types of-- [AUDIO OUT] those were lower satisfaction.

What this tells us is that counseling does have an impact and that the use of tools can be helpful, but the over reliance on them can impact that client relationship. People come to therapy to be with a person.

And so one of the other things that this research found was that CBT-specific techniques had low fidelity and were less effective in text-based format due to delivery limitations. And so while it can be convenient, if we're thinking about some of the ethical practices and potential implications of text-based services, it's important to know that not always is text based going to be the most effective method to be able to deliver therapy. So again, while accessible for some folks, it's important to know that there is the importance of that human connection. OK, next slide, please. And this is the last one that we'll talk about in terms of literature.

Again, this was another lit review that was done, looking at the roles of AI in psychotherapy. And so from 2009 to 2023, only 28 studies were found. So this is still a very new and emerging area. And so the key themes from this research was focused on the effectiveness of AI. So chatbots, this research shows that there was some promise in treating anxiety and depression. OK, well the previous one did not.

So again, it's taking that information and utilizing the clinical judgment. There's going to be some good and there's going to be some bad. It's a matter of what is going to meet the needs of your clients.

Another key piece was the different types of AI, deep learning, natural language processing, and how those were utilized, the benefits of AI, and then focusing on some of the challenges and ethical concerns, such as data privacy and security and the lack of empathy. As counselors, we know the importance of reflecting feelings, of listening, demonstration of empathy, being genuine. That has shown to be highly successful when developing and maintaining relationships with clients. A computer can't do that. I'm just going to leave that there and turn it over to Dr. Froehlich to talk about some ACA recommendations.

ROB FROEHLICH: OK, and I'm also mindful of time, too. I want to just point out to you all that there is an ACA-- American Counseling Association artificial work group that has developed some recommendations for counselors, including learn the essentials, stay open, informed, and educated, avoid over reliance on AI, recognize that there may be some bias and AI can be capable of discrimination, advocate for transparency in AI algorithms, maintain transparency and informed consent. Counselors should empower clients to communicate about their AI use. Counselors must understand the limitations of AI in diagnosis and assessment and all counseling settings.

We've been harping on this whole "make sure to use critical thinking." And there's a reason for that. So let's say that I go to ChatGPT and I type in, "what are the best techniques for working with clients who are experiencing anxiety?" It's going to generate some stuff. And as a licensed professional counselor and a certified rehab counselor and someone with a doctoral degree in counseling, I'm going to be able to look at what that information is and pick out the good, the bad, and the ugly.

We can't just take for face value any kind of information that's generated. There's something-- I believe the term is "AI hallucination," whereby-- I hope I'm using this term correctly, but AI will make stuff up. In the absence of knowing, sometimes it will just put stuff in there that makes absolutely no sense. And we're going to know, because of our training and our background and certifications and licenses, that it's garbage. So it's important for us to use those skills in evaluating whatever type of information is generated.

So ACA has some work group recommendations. The National Board for Certified Counselors also has a statement pertaining to usage of artificial intelligence. It's much briefer, but I want to direct you towards that, too, to be able to take a look. It's good to get information from more than one source. But I think probably, since we have limited time left, let's jump into an example that doctor Tichy has generated. And let's look at that example, and then how it would ethically be approached, and then what would be a scenario that would look unethical. So--

NICHOLE TICHY: Perfect. OK. So for this scenario, a vocational rehabilitation counselor is assisting a client diagnosed with generalized anxiety disorder who struggles with decision making, time management, and workplace social interactions. The client is seeking a remote job to help manage anxiety while maintaining productivity.

To provide personalized and ethical support, the counselor integrates AI tools such as Goblin Tools, which is an AI-powered executive functioning support website, ChatGPT-- and this is going to be utilized for career coaching and interview preparation-- and then finally SARAworks, which is a client communication and compliance-automation tool.

ROB FROEHLICH: So if you think about the scenario and you look at, what are the potential functional challenges or functional limitations? When I spoke before about, it's important for you, the counselor, to have the conceptualization and the justification for, hey, why are you using those three different sets of tools? What are they going to do for the client? What will they enhance in terms of your approach in working with that client? And what are the expected outcomes?

That goes to this whole personalized support while maintaining human oversight. So we want to make sure that we're going to look at this scenario that's presented to us, and think about, what are things that are out there that might be of assistance? So you're going to collaborate with that client to use tools that are going to help with executive functioning and with career coaching and interview preparation and with client communication.

You are going to consider data privacy and informed consent. First off, is the client OK with you using these tools with them, collaboratively? You're going to use them in as anonymous a way as is possible. You're going to educate your clients on AI limitations, data security, and risks, and help them make informed choices about which tools they're going to use.

You're going to review-- again, you're going to use that critical thinking. Let's say that you are using something, some form of artificial intelligence, that generates job suggestions. You're going to look through and see, does that make sense? Is there any way that this platform has generated information or made decisions that might unduly benefit one group of clients that you work with over another?

You're going to realize that you're using this to support, not replace, human judgment. So you're going to use, potentially-- goodness knows, I have many times, wanted to send an email, and I will put it into ChatGPT and say, what's a nicer way for me to express this? Or here's my email, take the frustration out. Those are really good uses of artificial intelligence, so using it also to prepare, potentially good mock interview questions or responses to those questions.

However, you're still, as the counselor, going to work directly to provide coaching on emotional regulation and confidence-building techniques. And you're going to be that glue that holds things together, to see if it makes sense. You're going to promote transparency and client autonomy. You're going to explain how AI tools generate recommendations, and ensure that the client understands the reasoning behind the suggestions.

And ultimately, the client has full control over which AI recommendations to implement, so thereby reinforcing their self-determination and their confidence in decision making. So that's an ethical way to use or to conceptualize artificial intelligence in the vocational rehabilitation or counseling process-- as opposed to--

NICHOLE TICHY: The unethical use in this specific scenario. So one of the main considerations when thinking about unethical use is violating data privacy and confidentiality. So when it comes to accessing these systems, a lot of them are open source, meaning that they don't have certain protections. And so inputting personal and medical details into an unsecured system without anonymization or consent is unethical because it breaches confidentiality and potential HIPAA violations.

So you should never input personal or medical details in terms of the clients that you're working with regarding the systems that you're using, especially without consent. Anytime you use a form of AI or another type of tool, always ask for consent. The other thing that I really want to highlight in terms of the unethical use, because we only have three minutes, is AI bias and discriminatory job recommendations.

So it's possible that the job matching AI filters out high-responsibility positions because the client has mentioned having anxiety. And so this, then reinforces potential stigma and bias. A lot of AI tools still continue to have this bias and discrimination against individuals with mental health conditions, limiting equal opportunities.

So again, this is where that human judgment comes in, and as VR counselors, knowing how to consider your client's preferences, workplace culture needs or coping strategies. There are more things to consider, but I'm going to pass this off to Dr. Froehlich, so that way, we can close out and end on time.

ROB FROEHLICH: Sure, we have a little bit of information on SARAworks, so feel free to review the information that we've shared. But I think due to the fact that we're bumping up on the hour, and in terms of sharing the slides, I'm certain there probably are some questions in the chat. And what I'm going to make offer to is, you can feel free to reach out to Dr. Tichy or myself.

Have any GW colleagues been watching the chat? And is there anything, like one quick closing question that we might want to jump in on?

MAUREEN MCGUIRE-KULETZ: So far, it's been mostly-- there was a comment that I guess ChatGPT can convert to ASL and that they're using that.

ROB FROEHLICH: Oh, that's a great accessibility.

MAUREEN MCGUIRE-KULETZ: That's a great accessibility.

ROB FROEHLICH: Thank you for sharing that.

MAUREEN MCGUIRE-KULETZ: Now, a tougher question, how do you? And this is too long. How do you see it impacting efficiency, compliance, and data security? Are there any specific AI-driven solutions that might be supported or recommended?

ROB FROEHLICH: That's a much longer--

MAUREEN MCGUIRE-KULETZ: That's a much longer--

[LAUGHS]

ROB FROEHLICH: That's a much longer-- so in terms of the efficiency piece, certainly, this does have the potential to make things more streamlined and more efficient. But the whole message of our presentation, too is to make sure that if you are a decision maker or you are involved in making the decision about how to streamline things, that you're applying all of these ethical principles that we talked about, and not just doing it because it's more efficient, but then jeopardizing all of these other kinds of considerations, as well.

And honestly, the last slide in our presentation includes email addresses for both of us. So if we can be helpful, we do not put ourselves out there as the national experts on all things ethics and artificial intelligence. But if you do have a question, we'd be happy to respond and see if we can direct you. Remember, rehabilitation counselors don't always have all of the answers, but we can find the person who does.

And thank you so much to everybody for your attention throughout this hour. Really, much appreciated the ability to be with you. And it's so great to see so many former students and names that I've had the great pleasure of working with over the years. So thank you so much for being with us.

MAUREEN MCGUIRE-KULETZ: And thank you. It was an excellent presentation. Lots of things to think about in terms of AI and using AI.