



The International
Coaching Federation

Artificial Intelligence Coaching Framework and Standards: Examples

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1. Introduction

Technology and AI systems can be applied in many different sectors and industries to generate optimal output. This document illustrates several examples of AI Coaching Systems currently available and snapshots of functionality and user experiences and is a complementary document to the International Coaching Federation (ICF) Artificial Intelligence (AI) Coaching Framework and Standards and International Coaching Federation (ICF) Artificial Intelligence (AI) Coaching Framework and Standards: Questions Stakeholders Should Ask.

1.1 Working Group Members

In April 2021, the International Coaching Federation (ICF) convened a small working group, the Artificial Intelligence Coaching Standards Working Group, with expertise in technology, coaching, and standards development. The working group consisted of:

- Matt Barney ([XLNC](#) and [TruMind.ai](#))
- Joel DiGirolamo ([International Coaching Federation](#))
- David Drake ([The Moment Institute](#))
- Olivier Malafrente ([Université Côte d'Azur](#) and [Rypple.ai](#))
- Harry Novic ([Rocky.ai](#))
- Jonathan Reitz ([FLUXIFY](#))
- Nicky Terblanche ([University of Stellenbosch Business School](#) and [coachvici.com](#))

The working group, and an external expert on professional standard setting finalized these standards in 2024.

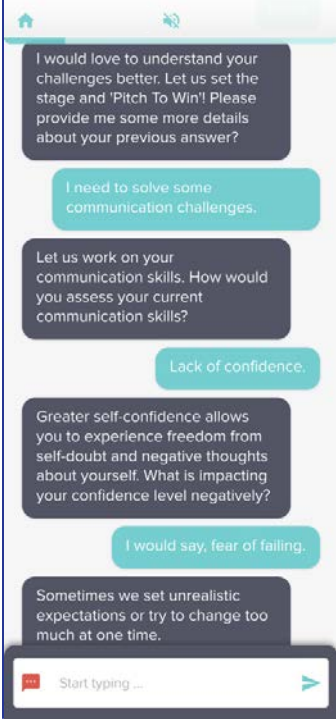
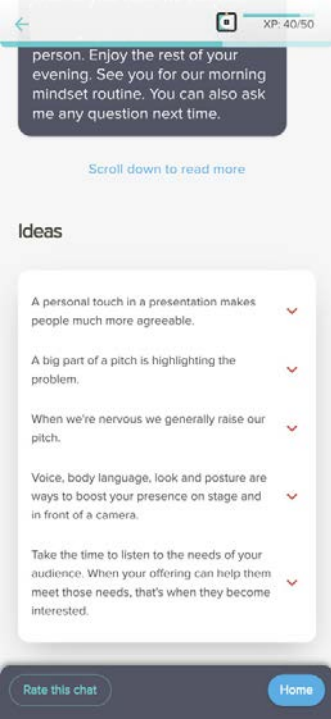
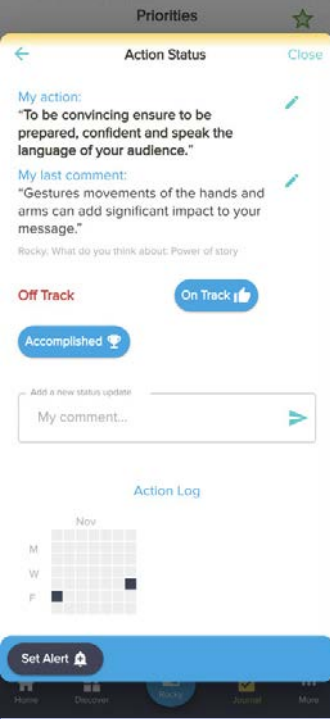
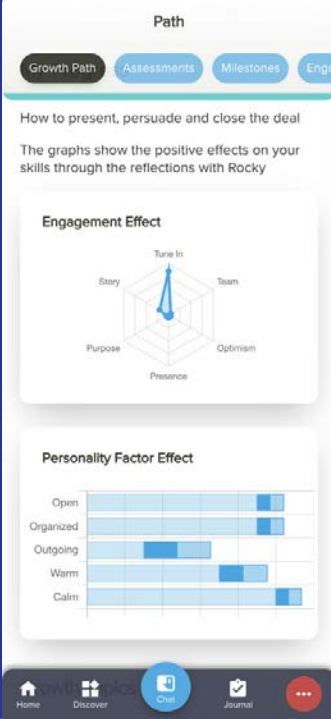
2. Example AI Coaching Systems

2.1 Example Illustration 1: Conversational AI Coaching App: Chatbot Interface

This application is an interactive self-coaching app that provides human-like coaching conversations with a chatbot interface that intends to increase self-awareness and inspires with questions and ideas through regular 5-minute reflections. The solution is tailored for young professionals who want to grow their soft-skills and develop a forward thinking solutions mindset. The application can be used by coaches to extend their services in between 1-on-1 coaching cases to keep clients engaged and to reinforce learning or by individuals to experience a light form of affordable self-coaching.

Application type: Conversational

Snapshots of functionalities and user experiences:


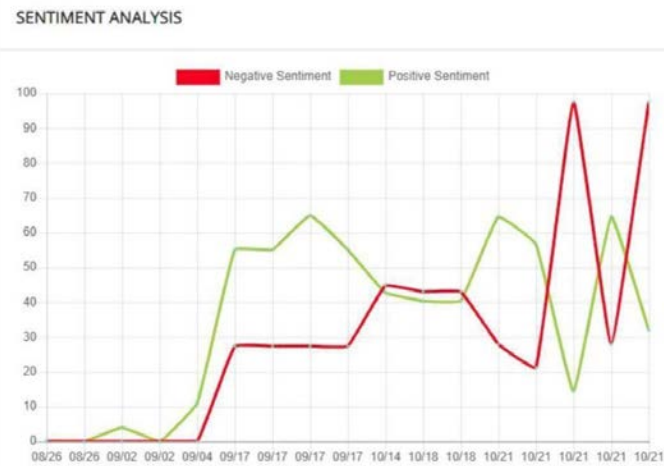
Coaching Chatbot	Inspirations	Follow-ups	Measurements
 <p>The screenshot shows a chatbot interface with a dark blue header. The chatbot asks, "I would love to understand your challenges better. Let us set the stage and 'Pitch To Win'! Please provide me some more details about your previous answer?" The user responds, "I need to solve some communication challenges." The chatbot asks, "Let us work on your communication skills. How would you assess your current communication skills?" The user replies, "Lack of confidence." The chatbot asks, "Greater self-confidence allows you to experience freedom from self-doubt and negative thoughts about yourself. What is impacting your confidence level negatively?" The user replies, "I would say, fear of failing." The chatbot asks, "Sometimes we set unrealistic expectations or try to change too much at one time." At the bottom, there is a text input field with "Start typing ..." and a send button.</p>	 <p>The screenshot shows an "Inspirations" screen with a dark blue header and a back arrow. It displays a message from the chatbot: "person. Enjoy the rest of your evening. See you for our morning mindset routine. You can also ask me any question next time." Below this is a "Scroll down to read more" link. The "Ideas" section lists several tips: "A personal touch in a presentation makes people much more agreeable.", "A big part of a pitch is highlighting the problem.", "When we're nervous we generally raise our pitch.", "Voice, body language, look and posture are ways to boost your presence on stage and in front of a camera.", and "Take the time to listen to the needs of your audience. When your offering can help them meet those needs, that's when they become interested." At the bottom, there is a "Rate this chat" button and a "Home" button.</p>	 <p>The screenshot shows a "Follow-ups" screen with a dark blue header and a star icon. It displays an "Action Status" section with a "Close" button. The "My action:" section says, "To be convincing ensure to be prepared, confident and speak the language of your audience." The "My last comment:" section says, "Gestures movements of the hands and arms can add significant impact to your message." Below this is a "Rocky, What do you think about: Power of story" prompt. There are "Off Track" and "On Track" buttons. An "Accomplished" badge is shown. There is a text input field for "Add a new status update" and a "My comment..." field. At the bottom, there is an "Action Log" section with a calendar grid showing "Now" and "M", "W", "F" days. At the very bottom, there is a "Set Alert" button.</p>	 <p>The screenshot shows a "Measurements" screen with a dark blue header and a "Path" section. It displays "Growth Path", "Assessments", "Milestones", and "Engage" tabs. Below this is a text description: "How to present, persuade and close the deal. The graphs show the positive effects on your skills through the reflections with Rocky". There are two charts: "Engagement Effect" is a radar chart with axes for Story, Tune In, Team, Optimism, Presence, and Purpose; "Personality Factor Effect" is a horizontal bar chart with categories: Open, Organized, Outgoing, Warm, and Calm. At the bottom, there is a navigation bar with "Home", "Discover", "Chat", and "Journal" icons.</p>
<p>Conversational AI coach and chatbot for regular 5-minute reflections based on defined growth paths, current challenges, and goals.</p>	<p>The AI coach is generating personalized and tailored ideas that match to current challenges and intentions of the user.</p>	<p>The AI coach is assigning the challenges and intentions of the user into follow-up tasks and monitors their achievements.</p>	<p>The user activities and engagements are measured to visualize personal development progress.</p>

2.2 Example Illustration 2: Sentiment AI of Journaling

The science of learning and emotions suggests that when people journal about the lessons they've learned from experience--applying coaching, for example--it helps them in a variety of ways. First, it helps them process the information more deeply, making retention better. Scheduled reminders to journal help clients remember to capture the lessons they've learned from applying expert or AI coaching in-between or instead of live sessions with a human coach. Second, there is also evidence that a healthy mix of emotions when learning and practicing is important. When a client experiences overly negative emotions, it is a sign that they are trying to perform a task that is too difficult, and if this persists, they may give up completely. On the other hand, when they experience overly positive emotions, it is also deleterious as it suggests they may not be stretching themselves enough, or not seeing things that they could be doing better. AI embedded into journaling that measures this emotional mix can help human coaches monitor and support clients in-between sessions, and plan live sessions based on their progress (or lack thereof).

Application type: Data-Processing

Snapshots of functionalities and user experiences:

Sentiment Measurement of Journal Entry	Sentiment Trend Analysis																																																						
 <p>Journal Entry</p> <p>Today I wanted to work on my confidence. I had a meeting with my supervisor, and she pointed out a calculation that I had gotten incorrect in my project proposal. The proposal is for a quality improvement project that I'm really excited about, and the calculation was a pretty simple return-on-investment number that I had put in the wrong number for. I like my supervisor and I know she has my best interests at heart. She was looking out for me by pointing out this error. I decided to look at her feedback as constructive and helpful, and reassured myself that I was still smart and capable. She and I talked about how I could fix the calculation, which I was mostly able to figure out myself, as I just needed to figure out where to go to find the right numbers. This made me feel pretty pleased and confident about my abilities, because I didn't really need her help. However, she was still very kind and encouraging. I left the meeting feeling good and positive about the interaction, and I feel confident and enthusiastic about the project proposal. It feels like my confidence has been improving over the past few weeks, and I am excited to see how I continue to improve.</p>	 <p>SENTIMENT ANALYSIS</p> <p>Legend: Negative Sentiment (Red), Positive Sentiment (Green)</p> <table border="1"> <caption>Approximate Data Points from Sentiment Trend Analysis Graph</caption> <thead> <tr> <th>Date</th> <th>Negative Sentiment (%)</th> <th>Positive Sentiment (%)</th> </tr> </thead> <tbody> <tr><td>08/26</td><td>0</td><td>0</td></tr> <tr><td>08/26</td><td>0</td><td>5</td></tr> <tr><td>09/02</td><td>0</td><td>10</td></tr> <tr><td>09/02</td><td>0</td><td>5</td></tr> <tr><td>09/04</td><td>0</td><td>10</td></tr> <tr><td>09/17</td><td>28</td><td>55</td></tr> <tr><td>09/17</td><td>28</td><td>55</td></tr> <tr><td>09/17</td><td>28</td><td>65</td></tr> <tr><td>09/17</td><td>28</td><td>55</td></tr> <tr><td>10/14</td><td>45</td><td>45</td></tr> <tr><td>10/18</td><td>45</td><td>45</td></tr> <tr><td>10/18</td><td>45</td><td>40</td></tr> <tr><td>10/21</td><td>25</td><td>65</td></tr> <tr><td>10/21</td><td>25</td><td>55</td></tr> <tr><td>10/21</td><td>95</td><td>15</td></tr> <tr><td>10/21</td><td>30</td><td>65</td></tr> <tr><td>10/21</td><td>95</td><td>35</td></tr> </tbody> </table>	Date	Negative Sentiment (%)	Positive Sentiment (%)	08/26	0	0	08/26	0	5	09/02	0	10	09/02	0	5	09/04	0	10	09/17	28	55	09/17	28	55	09/17	28	65	09/17	28	55	10/14	45	45	10/18	45	45	10/18	45	40	10/21	25	65	10/21	25	55	10/21	95	15	10/21	30	65	10/21	95	35
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Client's journal sentiment measured (Coach view)	Trend of AI measurements of coaching client's journal emotions																																																						

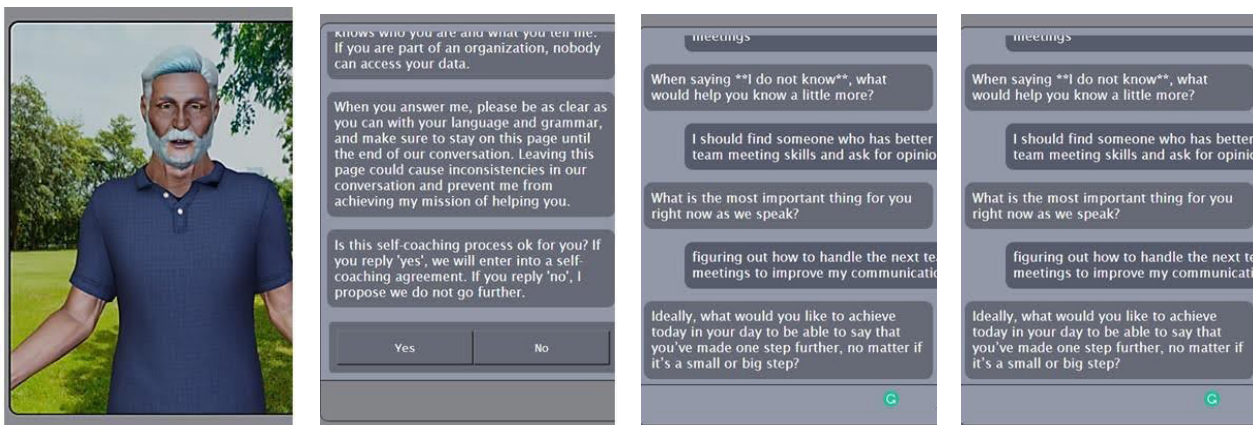
2.3 Example Illustration 3: Conversational AI Coaching Platform: Avatar

AI technologies combined with machine learning and natural language processing enable access to coaching avatar interfaces (man, woman, or symbols) to provide users with a self-coaching activity before, during, or after coaching sessions, when individuals do not have access to coaching, or when organizations want to educate people in their organizations about coaching. Use cases can be leadership development, goal setting, situated reflection for decision-making or priorities check, conflict resolution, or the development of interpersonal, intrapersonal, or contextual capabilities. Use cases can be for workers, learners, and students. In this example the companies Davi The Humanizers and PocketConfidant AI combine their technologies to produce the avatar interface and interaction capabilities.

Images and illustrations used at the Society for Industrial and Organizational Psychology (SIOP) 2022, conference paper available on ResearchGate

https://www.researchgate.net/publication/360345784_Artificial_Intelligence_Coaching_The_Future_is_Here

Application type: Conversational



Multi Modalities

- ✓ Visual
- ✓ Audio
- ✓ Writing

- ✓ Ethical framework
- ✓ Agreement

- ✓ Active listening
- ✓ Questioning
- ✓ Clarification
- ✓ Goal

- ✓ Evaluation
- ✓ Accountability

Standards elements present in this AI Coaching Application example:

- Elements A + B (AI Ethics, Establishes and Maintains Agreements, Cultivates Trust and Safety) are achieved through providing information about ethics, privacy and coaching principles that are used, and asking users whether they agree to the proposed principles.
- Elements B + C (Maintains Presence, Embodies a coaching mindset, Listens Actively, Evokes Awareness) are achieved through the integration and use of key coaching behaviors in interactions with users (e.g., active listening, questioning, clarification or summarizing, goal formulation, evaluation, supports accountability, offers calendar functionalities).
- Elements D (Facilitates Client Growth) is achieved by facilitating reflection on and formulation of goals, resources, priorities and what has been learned during the conversation.




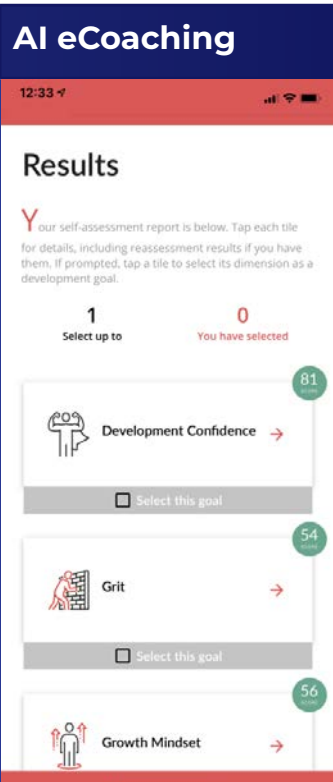
- Elements E (Coaching Reliability Measures, System Usability) are achieved through qualitative user feedback, ratings on progress and satisfaction of the experience as well as academic research analyzing both AI Coaching Application's and users' behaviors and outcomes (Malafrente & Loufrani-Fedida, 2023).
- Elements F (Security and Privacy, Resilience and Accessibility) are addressed by not requiring nor collective personal identifiable information such as names, email addresses or IP addresses. Research data is disclaimed and approved by user consent, application is accessible on more than one device and browser and works 99% of the time.


2.4 Example Illustration 4: Scheduled eCoaching

The AI platform provides an approach to assess clients, set goals, and deliver AI eCoaching at specific days and times to help them practice deliberately, concertedly, and purposefully. It further gives the client the ability to set subsequent nudges to journal about the lessons they've learned from that application of AI coaching, while giving a human coach private, confidential visibility to journal entries and chat exchanges.

Application type: Scheduling

Snapshots of functionalities and user experiences:

Assessment	Measurement	Scheduling	AI eCoaching
 <p>The screenshot shows a 'Home' screen with a 'Timeline' view for February 25, 2021. It features two practice prompts: 'Practice your Time Management' and 'Practice your Charisma'. Below these is a 'Journal Entry' section with a 'Hullo' greeting and a prompt for Feb 26, 2021.</p>	 <p>The screenshot shows a 'Notification Scheduling' screen. It includes a 'Which Days?' section with circular buttons for days of the week (Su, Mo, Tu, We, Th, Fr, Sa). Below is a 'Time for eCoaching?' section with a selected time of 9:30 am and a 'CHANGE TIME' option. At the bottom is a 'SET PRACTICE SCHEDULE' button.</p>	 <p>The screenshot shows a 'Grit' assessment screen. It features a score of 54 and a 'Margin: +1.23%'. Below the score is a bar chart with categories: SHY, APPRENTICE, CAPABLE, PROICIENT, EFFORT, and WIS. The 'CAPABLE' level is highlighted. A text block describes the 'Capable' level: 'You are likely to begin work on a project with great enthusiasm but sometimes lower your dedication when things become difficult. Furthermore, when there is a difficult choice that needs to be made you are moderately likely to act with sufficient courage to help you through the toughest parts of the task. You are willing to engage in goal-oriented tasks that require tenacity and some discomfort as long as you see yourself producing results. At the same time, you tend to not lose hope in the face of adversity and are usually willing to undergo some discomfort to work through these troubles. You are able to delay gratification temporarily, in order to make short-term objectives a reality. Longer-term gratification may sometimes be a challenge for you. Consequently, you're capable of being gritty but you could really benefit from growing your grit to the next level. Consider selecting this area for development.'</p>	 <p>The screenshot shows a 'Results' screen. It displays three development areas: 'Development Confidence' with a score of 81, 'Grit' with a score of 54, and 'Growth Mindset' with a score of 56. Each area has a 'Select this goal' checkbox.</p>
<p>Client influences stakeholders to complete 360 and finishes computer-adaptive self-assessment</p>	<p>Quantitative results with AI interpretation of what they mean so a goal can be set</p>	<p>Client schedules goal-specific AI nudges or eCoaching that is in their "goldilocks" zone (not too hard or easy)</p>	<p>Client gets eCoaching push notification to practice and journal, captured in an interface visible to self and human coach</p>

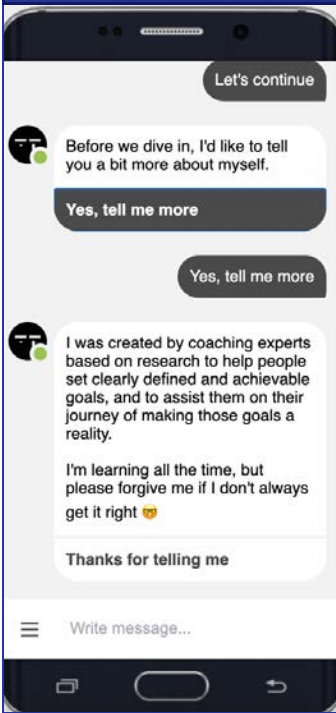
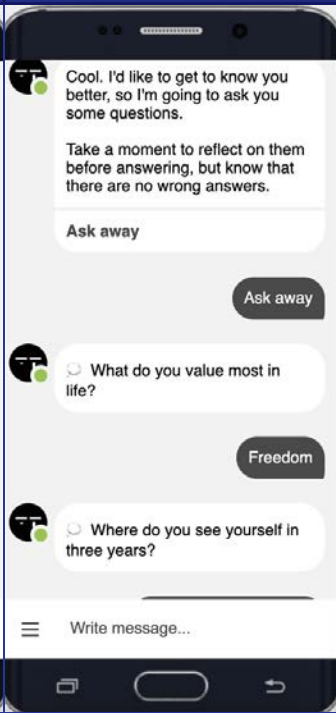
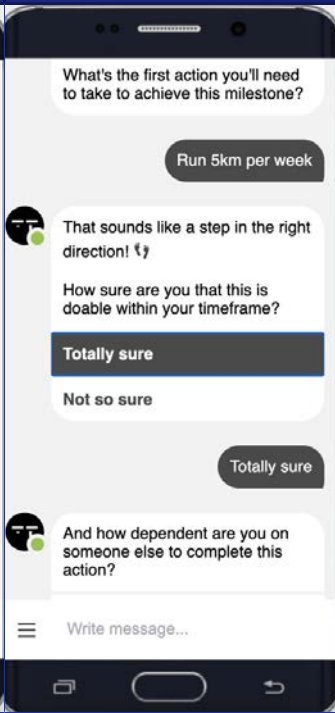
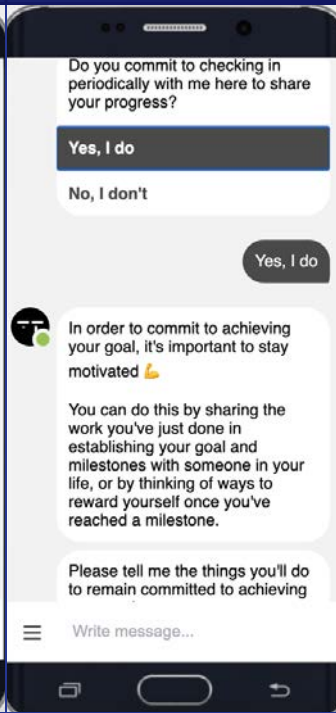
Automatic Reminders	Journal
<p>10:06</p> <p>Home</p> <p>Timeline Chat</p> <p>Mar 11, 2021</p> <p>Practice your Persuasion Reputation</p>  <p>When you're researching a pitch, find and use statistics and/or testimonials from experts whenever available.</p> <p>Journal Entry</p> <p>I met with that important client this morning and tried my best to make some small talk and take a genuine interest in them and their life outside of work. It was surprisingly easy to get into the conversation once it got started, and we had to finally stop chatting to get on with the agenda. I found out that Alice also enjoys playing volleyball and she invited me to join a co-op team that meets on Sunda afternoons at the YMCA! 😊</p> <p>Make a Journal Entry</p> <p>I did some homework on the people who will be on the call tomorrow. One of the most useful things I found was</p> <p>SUBMIT</p>	<p>10:47</p> <p>Home</p> <p>Timeline Chat</p> <p>Make a Journal Entry</p> <p>I met with that important client this morning and I tried my best to make some small talk and take a genuine interest in them and their life outside of work. It was surprisingly easy to get into the conversation once it got started and we had to finally start chatting to get on with the agenda. I found that Alice also enjoys volleyball and she invited me to join a co-op team that meets on Sunday afternoons at the YMCA! 😊</p> <p>SUBMIT</p> <p>is morning and</p> <p>q w e r t y u i o p</p> <p>a s d f g h j k l</p> <p>z x c v b n m</p> <p>123 space return</p> <p>😊</p>
<p>Scheduled reminders to help clients journal and deepen lessons learned</p>	<p>Cloud allows coach to view journal, nudge, and ask and answer questions in between live sessions</p>

2.5 Example Illustration 5: Conversational AI Coaching: Goal Attainment Chatbot

This AI chatbot coach uses the GROW model and goal theory to help clients identify and set goals and action plans, and monitor goals attainment progress.

Application type: Conversational

Snapshots of functionalities and user experiences:

Disclosure	Reflection	Action setting	Accountability
			
<p>The AI coach shares openly it's abilities and limitations</p>	<p>Open ended questioning helps deepen the client's reflections and insights</p>	<p>Client actions are reviewed for relevance and feasibility W</p>	<p>Client is encouraged to take responsibility and accountability</p>

EMPOWERING THE WORLD THROUGH

COACHING.

