

Coaching education: Wake up to the new digital and AI coaching revolution!



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Abstract

In this article we argue that coach education has been through three distinct phases of development over the past three decades: 1990-2020. These phrases reflect changes in the coaching industry, which itself has seen significant change over the same period. These phases include 'pre-profession', reflected in ad hoc and non-qualification based training, 'practice based professionalisation', which saw a growth in small scale coach providers using professional body competencies, and 'evidenced-based professionalisation', which stimulated the growth in university based coach education programmes focused on evidenced based and research informed training. We argue that as we enter the Mid 2020's we are witnessing a new shift in the coaching industry from 'professionalisation' to 'productization', with the emergence of large scale digitally enabled coaching providers. These new providers employ thousands of home working coaches and are focused on delivering coaching at scale to tens of thousands of coachees in enterprise size organisations using digital channels. This industrial change calls for a need to rethink and modernise coach education. Coach educators must acknowledge the shift towards the management of industrial scale delivery and the focus on data, the integration of AI into the coaching process alongside a movement towards mastery of the technologies which have enabled coaches to work globally. We conclude by suggesting coach education should offer two new career pathways: one for those commissioning and managing coaching services and a second for those working in digital coaching firms in coaching service management, in roles such as Customer Success and Coach Relations, alongside a revitalised coach training which equips coaches to operate in digital environments through a mastery of the communication platforms, tools and apps which they employ and a deeper understanding of new technologies such as AI, VR and MR.

Introduction

It can be argued the coaching profession has historically operated as a subset of the learning and development industry which has been estimated at \$357 billion globally (Statista, 2022). However, over the course of the global pandemic the coaching profession really began emerging as a distinct industry separating itself from the larger learning and development space. Digital coaching service providers began to rapidly scale coaching services specifically designed for enterprise clients looking to combat the negative psychological effects of Covid-19 on the workforce. As a result, a whole new industry emerged, which many have referred to as the digital coaching technology services industry or digital coaching for short.

As with any emerging industry market leaders began to arise attracting a lot of well-publicised investment from private equity firms and venture capitalists. Some market watchers have estimated the coaching industry to be worth \$14 billion in the US alone (IBIS World, 2022), but given the commercial confidentiality of the terms of these investment, the exact value of the coaching industry is more based on best estimates, than publicly available, audited, data. According to a 2021 briefing from Bloomberg, BetterUp secured \$300 million in financing based on a \$4.7 billion valuation in Autumn 2021. Some commentators (Bersin, 2021) noted that: 'BetterUp, the clear market leader, is now valued at over US\$4 Billion and is preparing to go public.' Our market analysis suggests two other global players have also emerged: CoachHub and EZRA, along with a dozen or more smaller players with revenues between US\$1–15m. We have estimated the revenues of the largest players in the digital coaching market and estimate the combined annual revenues of the three largest firms exceed \$US500m (2023).

According to Statista (2022) the average corporate L&D spend per US based employee in 2022 was \$1,267. Based on the success of the digital coaching service providers and their expressed intent to disrupt the learning and development space, there is no doubt a significant portion of that spend has been shifting towards coaching services in the North American market, while in many European markets, notable UK, France, Germany, Benelux and Nordics, similar trends can be seen.

These numbers paint a picture of a burgeoning industry in need of talent. In a recent survey conducted by the New York University (NYU) Executive Coaching and Organisational Consulting Master of Science program (ECOC) in conjunction with Coaching.com it was revealed that most coaching professionals (51 per cent) were not yet engaged in the use of any kind of digital coaching platform (Woodward & Pascal, 2023). However, the challenge with scaling coaching services is less about the number of available coaches and more about the qualifications of those coaches to enable them to offer a consistently high-quality experience.

With respect to coaching qualifications, more than 50 percent of the over 1,800 coaches who responded to the English language survey run by NYU and Coaching.com, held an ICF (International Coaching Federation) credential, while nearly 15 percent reported

holding no credential. Only 16 percent reported holding a Master's degree in a coaching related field (Woodward & Pascal, 2023 in press). This is low in comparison with other professional fields, where post graduate qualifications are essential, such as psychology, counselling and accounting. Given the relatively low proportion of higher-level university qualifications, it comes as no surprise that digital coaching service providers have been struggling with recruitment. Successfully scaling services to meet the needs of global enterprise clients not only requires more coaches, but specifically talented and qualified individuals capable of operating in complex corporate environments, who also understand both the practice and the science of coaching. Bachkirova and Smith, (2015) anticipated the shift towards coach quality, noting that 'organisational clients are also becoming increasingly discerning in relation to the quality of coaching' (p.123). Passmore and Lai (2019) raised the issue of definitions in relation to both the nature of the industry: 'What is coaching?'. Second, who practice it: 'What is a coach?' Given the changing nature of the industry, this question is now not being asked solely by clients, but also by the new digital coaching service providers.

The first thirty years of the industry from 1990-2020 have seen numerous professional bodies emerge. Some of these bodies are truly international including the International Coaching Federation (ICF), European Mentoring and Coaching Council (EMCC), and Association for Coaching (AC). Others are more regional (COMENSA) while many are predominately national bodies (such as the DBVC or British Psychological Society Division for Coaching Psychology). In some countries one body dominates, such as the ICF in the US. In other locations, coaches are spread across 25 or more professional bodies, such as in Germany. No single body is dominate globally, so in many parts of the world the EMCC or the Association for Coaching are the largest body, as measured by membership.

Each of these bodies has worked to create competencies, set standards and ethical codes and have developed assessments and membership grades. Historically, professional bodies focused on accrediting regional private training operators which focused on imparting basic entry-level coaching competencies and then certifying their participants. In the next section we explore how coach education has developed over this past thirty years and what might lie ahead given the winds of change blowing through the industry in the 2020's.

Coaching education 1980–2020

There has been little written about coach education in the academic literature since the emergence of coaching as a 'profession' in the 1980's. Instead the research literature has focused on outcomes and processes for much of its history. These studies have sought to measure the impact, or describe the models, frameworks or tools that the authors believe work best to deliver these outcomes. Much of this work has been concentrated in the period since 2000, and implies that coaching is thus a recent innovation, which was 'invented' in the 1970's or 1980's (Carter-Scott, 2010).

However, some writers have argued that coaching has a much longer academic history. Grant et al. (2010) traced coaching back to the 1930's (Gordy, 1937; Bigalow, 1938). Passmore has found evidence of the use of the term in academic journals back in the 1920's (Hudson, 1924; Watkins, 1924; O'Neill, 1925) and before (Trueblood, 1911; Merry, 1912;).

However, coaching probably predates a history recorded by academic journals, and arguably precedes the writing of Plato and his description of the Socratic method, which dates back to Ancient Greek Classical Society around 500BC. Passmore & Evans, (2021) have argued that coaching is likely to have evolved pre-history. It is simply one pattern of sophisticated communication, which is highly effective and efficient at enabling learning. While no academic papers, or written sources existed, it was probably used by hunter gathers alongside instructions, to encourage reflection and deep learning, in what was a complex and dynamic environment. Tribes would move from valley to valley in search of food, and each new geographical location and each season brought a new to think in a new way about gathering food. As a result, criteria would be more important than habits and rules. This contrasts with a settled pattern of living, when the villager would wake up and go to the same shed to milk the cow and the same apple tree to pick apples.

This early period of coaching, Passmore and Evans (2021) described as 'peoplistation': a time when coaching was widely used, but was an informal method of supporting learning. For example, coaching may be used by a leader of a hunting group to encourage newer members of the group to think about the criteria for a good hiding place to wait while hunting prey, or what features of the landscape would make for a good drive location (a location to drive the deer or bison towards, such as a valley which ends with a step sided escarpment, thus trapping the animal for easy slaughter) . It was probably preferred to a didactic style of teaching, as the group were constantly moving and thus teaching specific knowledge about that specific tree, bush, hill or valley was less useful than enabling newer members to understand criteria about the landscape and weather. This period has escaped written records and the few records we have bone fragments, cave paintings and tools, provide no clues to language or how discourse was used to facilitate learning.

The second phase which Passmore and Evans highlighted was the formalisation of coaching, or the Socratic or eclectic method, recorded by Plato in his Theatetus dialogue (Robinson, 1953). This second phase they labelled 'purposization', when the learning took a formal direction, and the method was noted by the teacher and recorded as their preferred pedagogy. The approach however came with its danger as Socrates' discovered, when his teaching style, and its effect, led to his arrest and a punishment of being forced to drink hemlock: Hopefully, a sentence few coaches are forced to endure today by their clients or stakeholders, when asking provocative questions.

The 1000-year period of classical society (500BC – 500AD approximately) disappeared with the emergence of what we often refer to as the 'dark ages', with few texts now

surviving from this period which ran for a further 1000 years (500– 1500AD), with the exception of religious texts (Nixey, 2018).

For coaching its re-emergence arrived in the 20th century, with a significant increase in the number of texts from the late 1980's onwards. This coincided with the emergence of professional bodies, the European Mentoring and Coaching Council (EMCC) and the International Coaching Federation (ICF), who's formation in the 1990's confirmed the arrival of the 'professionalisation' of coaching, typified by the use of the term 'coach' as an identity, alongside the development of coach competencies, ethical codes and coach training programmes. Until this phase coach education had been an informal practice: anyone could watch anyone coach, adopt the techniques and apply them to help others. The last three decades from 1985–2020 can be divided into three broad sub-phases.

The first of these was the development of coach education during the 1980's and 1990's. During this phase the focus was on skills training. Professional bodies either had not emerged, or their emergence had yet to be followed by formal syllabus, coach competencies and standards. As a result, the focus of the training was on basic coach skills (questioning, listening etc), often centred around a single model (GROW or Solution Focused) and most often delivered by small scale generalist training providers, who offered courses on a range of leadership and management skills.

The second phase followed the emergence of published standards by the professional bodies. These standards established competency frameworks, codes of ethics and required providers to register and meet quality standards to become approved providers of the accredited qualifications. This saw the emergence of what have been, sometimes unkindly, labelled 'Ma and Pa' coach training schools'. These schools might vary from sole traders to a small consulting and training company, with a few dozen employees or associates. The schools followed the established competencies and most often centred this around a single model or framework. Completion of the school's certificate enabled individuals to apply for practitioner membership or associate credential coach (ACC) awards from the professional body.

The third phase of development, emerged around 2010, although examples can be seen earlier (such as Sydney University in 2001, Oxford Brookes University in 2004, Henley 2006) was the development of university based, academic programmes offering post-graduate level qualifications in coaching. These new programmes, reflecting their academic credentials, placed a stronger focus on evidence, research and reflective practice than was common in the professional body accredited programmes delivered by the smaller school. These programmes were also more likely to offer an eclectic or integrative approach, offering students multiple approaches through a lens of critical thinking and self-awareness. From our market analysis there are now more than 50 university programmes worldwide at a postgraduate level (Table 1). The majority of these programmes have started since 2018.

Table 1: University Coach Education and Training Programmes

Countries	Coaching Masters degrees (MA / MSc / MA)	Certificate training for those seeking to become professional coaches (including post-graduate coaching programmes)
United States	New York University (NYU)	American University Columbia University Fielding Graduate University George Mason University George Washington University Georgetown University Kennesaw State University, Coles College of Business New York University University of Miami University of Wisconsin-Madison William James College Wright Graduate University
United Kingdom	Ashridge, Hult University Oxford Brookes University Henley Business School, University of Reading University of East London Sheffield Hallam University Warwick University Derby University Birkbeck, University of London Teeside University Cumbria University Newcastle University	De Montford University Centre for Coaching, Middlesex University, London Metropolitan University

	University of Portsmouth	
Portugal		<p>University of Lisbon - School of Psychology</p> <p>University Portucalense Infante D. Henrique</p> <p>INSPSIC, Portuguese Institute of Psychology & Other Science</p> <p>University of Lisbon</p> <p>ISG Business & Economics School</p>
Australia	Sydney University	
Brazil	<p>PUC Minas, Pontifícia Universidade Católica de Minas Gerais</p> <p>Faculdade IBC</p> <p>Universidade Cruzeiro do Sul</p> <p>Universidade de Vila Velha</p> <p>Universidade Federal do Tocantins:</p>	<p>PUCRS, Pontifícia Universidade Católica do Rio Grande do Sul</p> <p>PUCGO, Pontifícia Universidade Católica de Goiânia</p> <p>Universidade Metodista de São Paulo:</p> <p>Univali</p>
South Africa	<p>Henley Business School</p> <p>Stellenbosch Business School</p> <p>University of Johannesburg</p>	
Austria	University of Salzburg	
Canada	Royal Roads University	Royal Roads University
Spain	<p>University of Barcelona</p> <p>Autonomous University of Madrid</p> <p>Mondragon University</p>	<p>University of Nebrija</p> <p>UPF Barcelona School of Management</p> <p>ESIC Business & Marketing School</p> <p>Universidad da Coruña</p> <p>EADA Business School Barcelona</p>

		Barcelona School of Management ESIC Barcelona
Italy	University of Cusano	University of Catholic University of the Sacred Heart Pegaso Telematic University
Argentina		University of Business and Social Science UCES University of Buenos Aires
Mexico	Universidade Internacional Ibero Americana	
Chile	Universidad San Sebastián	Pontificia Universidad Católica de Chile
Columbia		Universidad Externado de Colombia OBS Business School CEUPE Colombia
Switzerland		IMD
Netherlands	University of Amsterdam	
Ireland	University College Cork Royal College of Surgeons in Ireland	

The fourth phase has been more recent, and is the coming together of practice and evidenced based programmes. These programmes can be divided into two categories. The first existing university coach education programmes, which have been adapted to meet professional body requirements, such as Henley Business School, UK. The second new post-graduate degree programmes like New York University, US, where they have combined coaching and consulting, and University of Cambridge, UK, where programmes are designed from the start in collaboration with a professional body. In

addition, new post-graduate qualification programmes have also emerged, with multiple universities offering certificates and diplomas in coaching.

In reviewing this model, it may be tempting to assume this is a linear path of progression. The reality is that examples can be found at each stage, reflecting an increasingly fragmented market. One which is growing, but where new providers are offering higher and higher standards, such as a growing number of university-based programmes in the most developed coaching markets. While it is still possible to attend a short, 1–3 day course on coach skills, from a generic provider and receive a ‘certificate’, it’s also possible to undertake a three year professional doctorate programme in coaching, a two year part time master degree or a 6–9 month coaching skills professionally recognised course and gain both a university qualification and a professional body accreditation.

The result of the past three decades is that the growth in popularity of coaching has seen the parallel emergence of a coach education industry, with an estimated 10,000 people training as ‘coaches’ each year. The result, is that coach numbers within professional bodies have been rising rapidly, from what was a cottage industry in the early 2000 with 10,000 coaches worldwide, to what we estimate is 100,000 professionally trained coaches worldwide as members of various professional bodies (December 2022), with an further estimated 25,000 people earning a portion of their income from undertaking coaching, while not accredited/credentialed coach or a member of a professional body. This makes a total estimated industry size of approximately 125,000 (Dec 2022). The result of this growth is that while coaching demand has continued to grow, the industry is heading towards an over-supply of professional trained coaches by the late 2020’s. A future where fewer coaches will be able to make a full time living from providing coaching services. While more coaches are achieving professional qualifications, based on coach competencies, in contrast, the number of qualified coaches who meet the increasingly higher bar of education, such as a post graduate degree, common in accounting or counselling, remains low.

Given the changes in education over the past decades, it is critical that we explore what might lie ahead for coach education as it struggles to keep up with a dynamic growth industry. In the next section we will explore the emergence of what Passmore and Evans (2021) described as ‘productization’ of coaching.

The changing nature of the coaching industry

The last three decades of coach industry development have been from sole traders to cottage industry. The next three decades are likely to see dramatic change driven by technology from sole traders and small-scale providers to global professional service firms. At the centre of this change has been the role of digital technologies to enable coaching delivery to move from a predominantly face-to-face mode of delivery to digital mode.

The use of technology in coaching certainly is not new, many coaches have been using digital communication tools, from phone coaching in the 1990–2010, to Skype and

Zoom through 2010–2020. What has changed is the scale of the process, what Passmore and Evans (2021) called ‘Productization’, and others have labelled ‘uberisation’ or ‘commoditization’ of coaching.

Over the past five years new coaching services have emerged which have brought together technology and coaching science. A host of different services are provided, and we have tried to gather these together in clusters with the largest firms in Table 3. The most rapidly growing market segment are what we term ‘digital coaching platforms’ These offer the convenience of online delivery, through a secure communications platform, win the coaching work and manage the client relationships and billing, while using associates to deliver the coaching sessions. The benefits of the model are significant reductions in fees rates, as arguably coaches focus only on coaching delivery, while the platform provides the technology and support services expected by enterprise organisation, who are attracted by the convenience of a single provider able to operate in multiple languages, multiple time zones and meet multiple and diverse needs through offering a diverse coaching pool.

The result is the three largest digital plat- forms are now the three largest global coaching firms: BetterUp, EZRA and CoachHub. Only one of these, EZRA (a company incubated within LHH, part of the global Adecco Group), had previous experience in coaching and has a deep connection with the HR market. The majority of the other providers in this market segment have adopted a geographical or market segment focus. For example, AceUp with clients concentrated in the North-East US region, UExcelerate with a focus on the Indian / Asian sub-continent, or market focus, such as Sounding Board and Torch, with a focus on ‘leadership coaching’.

As we move forward it’s our view that the period 2023–2026 will see a sizable change in the market, with acquisitions and mergers. Due to economic conditions some firms will be unable to secure new invested finance to continue their expansion, or founders-owners may decide to sell to larger players, such as global professional services providers, or learning development providers, interested in the digital coaching market. We will also see over this period, merges and closures, as some firms, who were able to secure boot-strap funding or Series A and B rounds are unable to secure new funding for a Series C or IPO.

By 2030 we anticipate two or three global providers, each with revenues exceeding \$300m, and 6–12 smaller players with revenues in the range \$5–20m, with some geographically focused, others market focused.

A second market which has emerged is the coaching software providers who offer coaching networks and communities for sole trader coaches. This is typified by Coaching.com, Optify, Delenta and Simply.Coach. Each has a specific market offering, with Coaching.com by far the largest, and offering coach continuous professional development (CPD) through a subsidiary; WBECS. These firms provide a secure platform with coaches paying a fee to join, enabling them to diarise meetings with clients, deliver and track coaching sessions, and benefit from or share training-learning.

Table 2: Phases of Coach Education

Coach development 5P phases (adapted from Passmore & Krimmer Evans, 2021)	Coach industry development characterised by	Coach education development characterised by
Peoplisation 50,000BC-500 BC	Unconscious conversation tools used by everyone to aid learning	Informal learning through observation of others, possibly used to teach skills in hunting and the home
Purposisation 500BC-1980	Coaching with specific learning goals	Formal application of coaching model as a pedagogy, used to teach reflection and critical thinking
Professionalisation Part 1: 1980-1995	Coach training	Pre-standards, formal training used to enhance managers skills in coaching
Professionalisation Part 2: 1995-2005	Specialist accredited coach training	Practice based, formal training to create a new professional group 'coaches'
Professionalisation Part 3: 2005-2015	Specialist coach training with evidence and science	Evidenced based, formal training used to create a 'thinking class' about the new phenomenon 'coaching'
Professionalisation Part 4: 2015-2020	Specialist accredited coach training, with evidence and science	Evidenced based reflective professional practice, used to create a new professional group 'coaches' of equal standing to other professions
Professionalisation Part 5: 2022+	Specialist accredited coach training in a digital environment	Evidence-based digital practice for multiple employment streams: coaches, commissioners and supplier management.

One route for growth for these firms will be to Venture Capital (VC) investments, a second model is a co-ownership or crowd-funding model. Given the meteoric rise of the digital coaching platform model, it will be interesting to follow the evolution of this model as the industry evolves.

The third market segment is the AI Coachbot. These are devices which offer computerised coaching conversations, thus replacing the coach with what can be considered to be the equivalent of the driverless car. The technology of these remains basic (as at 2022), although the outcomes achieved suggest that AI bots can be highly effective at support goal attainment (Terblanche et al, 2021). The continued development of computer hardware, such as processing speeds, and software, such as AI and speech software, will mean over the coming decade this segment of the market is likely to develop. In fact, we forecast that by the Mid 2030 coach companies will include in their offer AI solutions alongside human solutions. The benefit we see from this is that unlike human coaching solutions, which require payment of professional coaches, AI solutions can operate at close to fixed cost, and thus truly democratise coaching by making it available for a billions of users, instead of the millions who have the resource to access human to human conversations. Such an outcome enables a sole trader in India or South Sudan to access coaching, as well as a parent in Vietnam and a university student in Honduras.

For many coaches the emergence of AI, and the noise created by OpenAI, and ChatGPT, creates a fear that AI will steal the jobs of coaches. This is certainly one potential outcome, in much the same way as the motor car replaced the horse and cart., it reducing the demand for blacksmiths. But we share a similar view to Passmore and Tee, who believe a more likely outcome is an increase in the total volume of coaching, with AI adding to human-human provision, and in some use cases being used as a supplementary tool, for example providing synchronous insights to coaches during a session or supporting inter-sessional activities through learning nudges (Passmore & Tee, 2023).

Much depends on the pace of AI development, the quality of AI coaching tools, human responses to AI coaches and how AI coaching is commoditised, (i.e. will it be sold as a separate app, bundled into existing services or provided for free much like a Google search engine).

In the next section we consider the implications of these dynamic market changes which are impacting the coaching industry and how the coach education and training must evolve to keep pace.

Table 3: Coaching Industry market segment review and providers

Market segment	Digital Platforms	Coaching Management software	AI Coach / Conversation bots	Asynchronous coaching (AI & human)
Providers	AceUp BetterCoach BetterUp Bravely CoachHub EZRA-LHH Pluma Sharpist Sounding Board Torch UExcellerate	Coaching.com Delenta Honeybook Optify Paperbell Profi Simply.Coach	AI Coaching AIMY (CoachHub) CAI (EZRA) Evoach Pocket Confidant Rocky.ai	Wave

(Data as at 31 December 2022)

New rules: The new coach education agenda

As evidenced in this paper, the coaching industry is going through a rapid transformation, one driven by the rapid growth of digital platforms and the emergence of new technologies and digital tools. As the market becomes more competitive, enterprise buyers of coaching services will require more knowledgeable coaching managers, and will demand ever higher standards in coach qualifications. To succeed coaching service providers must employ more informed and knowledgeable employees as well as find ways to differentiate their product from their competitors through enhancing coaching quality and coaching data, both evidence of impact (lagging indicators) and predictive data (leading indicators).

As a result, we see a ‘tri-fication’ of coach education and the creation of three separate industry roles:

1. Evidenced-based professional coaches with research competence and technical savvy
2. Coach programme managers (buyer roles, such as programme administrators and managers)
3. Coach service managers (supplier roles, such as Customer Success and Coach Relations)

While professional coach development will remain the most significant of these roles, and a common skill, knowledge of the business of coaching also needs to become recognised in the syllabus, reflecting the skills demands from the new digital coaching industry, and the opportunity it offers coaches to bring their knowledge to the table.

In response to these forces of change, coach educators should be looking to re-evaluate their coaching syllabi and ask how it can best prepare professionals for the coaching environment of the 2020's and 2030's, not the coaching environment of the 2010's.

Professional coaches

The primary role of coaching education and training programmes remains coach education, where skills-based programmes have dominated. To keep pace with the rapid advances in the industry we believe coach education must place a greater emphasis on science, research, and technology so as to foster more critical thinking as the field evolves.

In this changing climate we suggest coach education for professional coaches should include:

1. Working in digital environments
2. Leveraging the power of technology, including AI, VR and MR.
3. Developing deeper self-awareness
4. Supporting coaches to develop self-care
5. Wider understanding of organisational context.
6. Developing generic business skills

Let's explore each of these in turn. Firstly, working in digital environments. As the practice of coaching becomes more integrated with technology, coaching education and training programs must address both the positive and negative aspects of the use of new technologies. In the near future, coaches will likely be interfacing with human resources information systems (HRIS), digital dashboards, AI nudging tools, VR and MR, among others. Coach educators must ensure their students are not only familiar with the use of these tools, but they must also be familiar with how they are developed as well as the ethical considerations around data collection, reporting and sharing. The fact is coaches will have to grapple with data privacy and be familiar with the widely varying regulations across the globe including the EU's GDPR and other national and state level privacy and data laws.

Many of these new technologies impacting coaching have been spearheaded by technologists with little background in coaching. The unfortunate reality is that most coach practitioners are less technologically savvy. To counter this, coach education programs must expose students to the basics of digital coaching technology so as to prepare them to earn a seat at the developers table. Having strong technical skills will allow coaches to exert more influence over the creation, testing and deployment of emerging technologies, as well as being able to better leverage these tools within their own coaching practice.

We are also seeing the emergence of multiple new technologies which can assist coaches, from whiteboards to online strengths cards, and from VR spaces to supportive learning technologies along with coach supervision technology. Yet few coaches in the physical world report using such tools (Passmore, 2021). The lack of take up reflects a digital hesitancy, with many coaches unfamiliar with online applications and digital tools. Coaches need training and practice opportunities to develop the confidence to use the multiplicity of applications available to support their coaching.

While Artificial Intelligence technologies have only started, the potential of these tools is significant, initially as supplementary chat- bots, but early research looks promising, and suggests AI coachbots can be just as effective at supporting clients in goal attainment as human coaches (Terblanche et al., 2022). Further the emergence of generative language tools provides the opportunity for coaches to harness these tools as an aid to their own coaching.

The second aspect is the role in coach education of research, science and the development of critical thinking skills. As we noted many commercial programmes have restricted their syllabus to coach competencies and a single coaching model. This approach contrasts with the typical university programme approach, which aim to develop in their students an understanding of the variety of coaching approaches, the strengths and weaknesses of each, the psychological assumptions underpinning them and the research supporting their efficacy. A growth in this approach both in the number of university coach programmes and in commercial providers adopting a more critical and eclectic lens would be welcomed.

Thirdly, as we noted some of the early university programmes, such as Oxford Brooks and Henley, emerged from a desire to enable individuals to become more self-aware. It has also been a central theme of writers such as Bachkirova (2011). Coaching was a method to enable that journey. Evidence now confirms the wider value of self-awareness to the coach and the coaching process (Carden, Passmore & Jones, 2022; Carden, Jones & Passmore, 2021). This has in part been acknowledged implicitly through coaching competencies, such as Competency 2 (ICF, 2020). Coach education however should actively encourage continual self-reflection through journaling and other processes, making it a feature not simply of training, but part of a coach's continuous professional development (Passmore & Sinclair, 2021)

The fourth aspect is self-care. When coaches worked from client offices, they engaged in multiple conversations each day. In the digital world, conversations are less personal and more focused. Coaches, like other workers, need opportunities to meet other coaches, share experiences, build relationships and receive CPD and support. Helping coaches recognise the challenges they may face in the digital world and helping them prepare their support network as part of their training, which should include supervision and mentoring, should all form part of the coach development journey.

The fifth aspect is organisational context. As coaching becomes more organizationally-focused coaches also need an understanding of the complex of organisational systems and the wider world from psychological safety to self-determination theory. Coaching workers and leaders operating in professional work environments requires a strong grounding in organisational systems, business strategy and culture. As coach educators we must expose students to the basics of how organisations function and various approaches to collecting data and diagnosing the challenges workers face in their daily lives.

The final aspect is business skills. While this may not be considered an integral part of coach training, evidence suggests that many coaches feel this is a missing ingredient. While such content may not form part of a formal programme, helping coaches to become 'business-able' can help new coaches to flourish in the digital marketplace, where new methods for marketing, engaging and presenting are required.

As we have noted while providing programmes focused on professional evidenced based coaching skills remains central, new roles are also emerging in the coaching industry. These roles are within organisations keen to expand their coaching activities, and secondly within the growing digital coaching industry and the enterprise organisations it supplies.

Coaching commissioners

For coach commissioners this means the emergence of specialist content exploring the commissioning and programme management role. Important in this regard are understanding the procurement (tendering process and assessing bids) contracting, managing and evaluating the quality of coaching and its impact in different programme area.

Coach service managers

For coach providers, this means an exploration of the service function, from preparing proposals, recruitment, management, supervision and CPD for the coach pool, evaluation and impact assessments for clients.

Research collaboration

One aspect which we have not discussed, but is central to coach education is the development of new knowledge. We believe university psychology departments and business schools have a unique role to play in building the evidence base of coaching. The last thirty years of coaching has seen positive progress, thanks to the work of Anthony Grant, David Peterson, Erik de Haan, Heidi Moller, Siegfried Greif, Rebecca Jones, Carsten Schermuly and others. However, the challenge researchers have faced is the lack of high quality, large-scale samples. Only by coming together with digital providers and professional bodies, can university researchers create the large-scale randomised ethical trials, which are commonplace in other industries. In health, collaborations between universities and health providers is commonplace, but in coaching, to date, few true research partnerships have emerged. Organisations like GSAEC, ICF, British Psychological Society (BPS), APA and EMCC Global also have important roles to play to ensure the development of knowledge is shared, helping all boats to rise in the interests of the wider industry, but fundamentally in the best interests of clients.

In addition to the collaborations with business schools and schools of psychology, we advocate new research collaborations with departments of human capital analytics, computing and technology. While the human domain remains the centre of current practice, AI and coachbots create implications for the human machine interface (HMI). How should such interfaces, from the data dashboard to new applications be developed? While in the 2020's the focus remains on human lead coaching, we can see the growth of technological intervention growing, with the potential during the 2030's for technology to be both an equal partner, supporting the coach in delivery,

or replacing the human coach, enabling the dream of democratisation of coaching to be realised, with coaching available not just for workers in well paid roles, but for all across the planet in the same way YouTube or Google searches are available as a free (or practically free) product for self-reflection, empathetic support and goal attainment.

Supervision

We have focused this paper on coaching, but we also recognise there is a similar step change needed in supervision. While in the UK, and the European Union, coaching supervision is recognised as an essential ingredient of best practice, few digital coaching providers offer this to their coach communities. This reflects the slower adoption of supervision within the North American market, but this is starting to change. We anticipate this will change during the 2020's and the drive towards quality will necessitate a need for more trained and experienced supervisors. Coach educators are well placed to respond, offering supervision programmes to their alumni coach community and the opportunity for 'home alone coaches' to secure the support they need, in what can be a demanding and lonely role, offering back to back coaching sessions to five or six clients a day, 4 or 5 days a week.

Conclusions

In this article we have explored a topic previously not considered by the coaching literature. The coaching industry has experienced a shift. While there had been a gradual creep towards greater personalisation in learning, and a focus on just in time learning, the global pandemic (Covid-19) increased the pace of change. Organisations considering online modes of working or learning found in 2020 it was a necessity. These changes have facilitated the explosive growth in digital coaching platforms, and multiple new roles within the coaching industry. Further technological innovation is bringing forward AI based solutions which will become increasingly common as we move into the late 2020's. We have argued these changes now require a step change in coach education. Coach educators need to recognise that coaching is no longer predominantly face-to-face, but the majority of sessions are now online. This requires consideration of new skills and practices to operate in these environments, and new knowledge to understand data management in the digital domain. Further, large digital providers now employ thousands of people in the industry. These new workers and their successors require education. Until 2022, coach education has missed the revolution, this paper is a call for coach educators to wake up and get on the digital bus, or they will find in the age of the self-driving bus, they are still teaching how to 'double-clutch' their Routemaster (i).

Notes

(i) The Routemaster is the iconic London doubledecker bus, introduced in the early 1960s, and which requires a conductor to collect fares (paid in cash), a driver who needed to undergo a double (de)-clutch process to change gear, and an engine which needed a fossil fuel for power.

(ii) We would like to acknowledge the help of colleagues around the world including David Tee, Valeria Cardillo Piccolino and Eliana Gialain who helped search Spanish, Portuguese and Italian websites and colleagues from GSAEC in the US.

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