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Stewart, J, Gold, J, Jolliffe, P, Glaister, C and Halliday, S (2022) Futures and Foresight Learning in HRD. European Journal of Training and Development. ISSN 2046-9012

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Futures and Foresight Learning in HRD

Journal:	<i>European Journal of Training and Development</i>
Manuscript ID	EJTD-05-2022-0059.R1
Manuscript Type:	Perspective on Practice Paper
Keywords:	HRD, Futures and Foresight, action learning, leadership, machine learning, artificial intelligence

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Futures and Foresight Learning in HRD

Introduction

Organisations in the UK and worldwide face a significant future of uncertainty that is likely to continue for several months if not years. The COVID-19 Epidemic resulted in new ways of living and working, and this dynamic will continue to unfold, affecting all aspects of those working in the Human Resource Development (HRD) field. In addition, radical challenges continue to emerge from technologies, climate, environmental and socio-political sources, witness Russia's recent invasion of Ukraine and developing impacts on geopolitical relationships. Against such uncertainties, we will argue that HRD needs to embrace and include Futures and Foresight Learning (FFL) as a new addition to its field of theorising and practice. The question to consider is: How can FFL become a new feature of HRD? A key part of our argument is that the inclusion of FFL will enable HRD to add to the success of any organisation and make a vital contribution to the management of people at work.

The paper will unfold as follows. Firstly, consideration will be given to some of the debates surrounding the meaning of HRD. This will provide a brief recognition of various efforts to provide a disciplinary boundary around theories and practices that allow definition and other efforts that have defied such closure. It will also suggest that the instability of our time should also serve to disturb any comforts created and that there is a need to consider how there might be different futures for what we still call HRD in research, practice and praxis (Yawson, 2020). The paper will then consider how FFL might become one possibility for expanding the existing boundaries of HRD. . It will be argued that by characterising Futures and Foresight as a learning process, it provides new but complementary features to what is already considered as HRD. We will show that research points to how FFL can lead to organisation success and how this can be achieved. The paper will then consider how FFL provides a challenging but important addition to how we talk about learning at work and the theory and practice of HRD.

Meanings of HRD

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5 HRD has been a multi or inter-disciplinary consideration of learning in organisations for much
6 of its history. Around the turn of the millennium, Swanson (1999) used the image of a three-
7 legged stool to capture what he saw as the 'unique' integration of psychology, economics and
8 systems ideas into a theory of HRD. McLean (1998) preferred the image of an octopus that
9 could work with various disciplines, such as music, anthropology and speech communications.
10 However, even then, it was argued that both in theory and practice, HRD required a way of
11 seeing and understanding to reflect a multi-layered context and constant flux (McGoldrick et
12 al., 2001) which would also allow any clarity for HRD to remain ambiguous. Others such as
13 Lee (2001) believed that HRD should not be defined since there is a high degree of practice
14 around the world, which made generalisation for an acceptable meaning of HRD too difficult.
15 However, at this time, based on the perceived weakness of the professional identity of HRD,
16 it was argued that there needed to be an agreement on the meaning of HRD and its
17 boundaries relative to other fields (Gold et al. 2003) but, like all professions, debates and
18 creativity about meanings and practices needed to continue. Thus, while for some, HRD
19 centred on people, learning, and organisations (Chalofsky, 2007), an interest was developing
20 to consider how HRD could be extended across different sectors and types of organisation,
21 including different communities and countries. In their effort to answer the question, What
22 is HRD?, Hamlin and Stewart (2011) examined 24 definitions of HRD. Most were concerned
23 with workplace processes. However, there was an interest in how HRD could be used in
24 national policies as National HRD relating vocational education and training, including lifelong
25 learning for adults (Cho and McLean, 2004), or developing policies to tackle deprivation and
26 social exclusion. Hamlin and Stewart (2011) also found in the definitions some similarity
27 between HRD purposes and Organisation Development and Coaching. This suggested
28 potential for convergence of these fields.
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51 Interestingly, at this time, as a profession, HRD was still cast as a 'weakened profession' which
52 had to play a subservient role to others in the workplace (Short et al. 2009, p. 421). Perhaps
53 as evidence, following the 2008/9 Global Financial Crisis, HRD was criticised for its lack of
54 criticality in the chain of decision-making in some organisations and was reduced to
55 bystanders who could not use influence to change perverse practices (MacKenzie et al. 2012).
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60 . Nevertheless, the meaning of HRD over the last 10 years has seen some expansion. Ghosh

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3 et al. (2014), considering the coverage of HRD in academic journals, found 'waning' of themes
4 such as learning and training but 'emerging' themes such as culture, work-attitudes, careers,
5 diversity, knowledge management and leadership (p. 309). Harrison et al. (2020:213) from
6 their analysis of HRD Masters programmes also identified a change in specialist terms in HRD
7 programmes. Furthermore, they suggested describing HRD as a 'symbiotic profession' to
8 denote a profession that is sustained by its relationship with contiguous fields of professional
9 practice. . We would also add talent management and development (Devins and Gold, 2014).
10 For Lee (2016) such expansion was evidence of its evolving and emerging nature and
11 development based on a 'co-creation' (p.28) with other disciplines. We can add to these
12 developments the continuing rise of what is termed Critical HRD (CHRD), which questions and
13 challenges conventional and managerialist conceptions to promote inclusivity, social justice
14 and equitable power relations. (for example, Callahan et al., 2015; Bierema, 2020).

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27 The possibilities for expansion and adaption allow space for the meaning of HRD to be
28 reshaped. This has been particularly prominent as we moved into the COVID era. A 'changing
29 landscape' is afoot as part of shaping a new normal for HRD (Bierema, 2020; Byrd, 2021).
30 During this period, there have been disturbances to work patterns, which is likely to continue.
31 For HRD, the pandemic has affected how programmes were developed and delivered, shifting
32 significantly to the use of mediation via technology, requiring virtual and remote support such
33 as mentoring (Yarberry and Sims, 2021). Others such as McGuire et al. (2021) suggest that the
34 disturbance of COVID provides HRD with a chance to widen its considerations to counter its
35 apparent managerialist stance, perhaps an example of the influence of CHRD. They argue for
36 an ethics of care approach to HRD to foster values that 'assert the primacy of people and self-
37 interest' (p.33). Ethical practice is about themoral compass for living and making decisions –
38 'doing the right thing'. There is evidence of support for ethical behaviour: the integration of
39 ethical behaviour into education via the CIPD Professional map (CIPD, 2022) and the first-ever
40 launch of the 'Ethical Leader of the Year' (BusinessWire, 2022). Nevertheless, new patterns
41 of working are creating tensions between what is expected from work and the experience of
42 remote working, against which HRD practitioners need to find responses (Shirmohammadi et
43 al., 2022).

Perhaps of great significance for HRD, both in terms of a threat and an opportunity, are the changes that were already operating before COVID but received a boost from it. Such changes are associated with the various technologies of artificial intelligence, embedded analytics, robotics, and others, forming a package referred to as the Fourth Industrial Revolution (4IR) (Schwab, 2017). Included in such technologies is the process of Machine Learning (ML), which seeks to emulate human learning through the acquisition of knowledge but by using an algorithm to make decisions (The Royal Society, 2017). . An extension of ML is Deep Learning as the capability to work through concepts within data to build new higher-level concepts (Goodfellow et al., 2016). . The advance of ML has been associated with the displacement of humans in work situation to be replaced by robots, with estimates that many occupations would change or be replaced (Deloitte, 2018). . It must be recognised that taking advantage of ML's opportunities and avoiding the negative impact requires collaboration between stakeholders to embed human values (Schwab and Davis, 2018). Harrison et al. (2020) argue that the meaning of HRD has to incorporate ML and associated technologies by the involvement of practitioners in projects of ML at an early stage. Further, this requires an evolution of the HRD role as a hybrid discipline to enable involvement in key choices about the technologies. It is part of such a move that HRD needs to embrace Futures and Foresight Learning (FFL).

Futures and Foresight Learning

The anticipation or even precise prediction of what will happen in the future has been an essential feature of human thinking which has endured in human life (Bell, 2001). When life was more predictable based on seasonal cycles, there was little to learn about the future other than possible discontinuities such as crop failure, war or even the spread of disease. However, in an age of turbulence, instability and volatility, this would suggest value in a more purposeful learning process to consider future possibilities in organisations. FFL can enable organisations to prepare for events which often arrive as surprises to leaders and managers (Crews 2020), providing leaders with an ability to future-proof their decision-making (Gariboldi et al., 2021). If leaders have an understanding of different possibilities of what

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3 might happen in the future, they are then able to provide clarity of vision and goals to others,
4 especially their staff, as contingencies unfold. This is a crucial capability to ensure effective
5 management of people at any time but especially during periods of uncertainty (Maran et al.,
6 2022).
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12 A community of scholars and practitioners has already formed a field of inquiry and practice
13 with formal organisations such as the World Future Society, the World Future Studies
14 Federation and the Association of Professional Futurists. There has been a growth of interest
15 in futures, tools and techniques for practice and research within futures studies departments
16 (Son, 2015). However, there have been ongoing difficulties relating to accepting and using
17 futures and foresight in organisation decision-making and the view that added value can be
18 provided (Pinto and Medina, 2020). We contend that if futures and foresight can be presented
19 as a learning process – as FFL – there is a significant opportunity for HRD to become the
20 delivery experts and simultaneously enhance its standing as a profession.
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31 There have been attempts to provide definitions for futures and foresight throughout its
32 development as a field. For example, Glenn (2002) refers to futures research as ‘the
33 multidisciplinary study of interacting dynamics that potentially create fundamental systemic
34 change in major areas of life over 10 to 25 and more years’. Martin (2010) traces the use of
35 the term foresight showing a distinction from forecasting. He highlights how forecasts can
36 provide predictions whereas foresight is concerned with understanding possibilities based on
37 a range of factors that can shape the future. The former is based on the assumption that
38 predictions can be justified, whereas foresight allows different and alternative ideas to be
39 assessed and evaluated for action. Thus, FFL can provide a range of possibilities that, if key
40 communication links are in place, will allow any organisation to revise and reshape its strategy
41 (Fergani et al., 2020). . For example, according to Salvatico and Spencer (2019), the Disney
42 Corporation has worked with FFL since 2012 with 15 teams to consider opportunities as it
43 faced rapid changes in the entertainment sector. Slaughter (1997) suggested futures methods
44 could blend with strategic management. Ahuja et al. (2005) referred to how foresight enabled
45 a personal power of seeing provided managers with an ability for their actions to create
46 competitive advantage. . Slaughter (2009, p.8) saw strategic foresight as ‘the ability to create
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and maintain a continuous high-quality, coherent, and functional forward view, and to use the insights arising in useful organizational ways’.

Most definitions have sought to qualify FFL in terms of its difference to prediction. However, given the prominence given to ML and AI in recent years, it is better to include these developments in any FFL consideration. One approach is to adapt a definition of FFL to allow this inclusion. For example, in terms of HRD, we offer an adaptation of the presentation by Micic (2010) as:

‘an ongoing learning process to find predictable, probable, possible, and/or a variety of long term futures’.

It becomes possible to present FFL as a dimension between predictions of the future and what can be imagined in the future which we show as Figure 1.

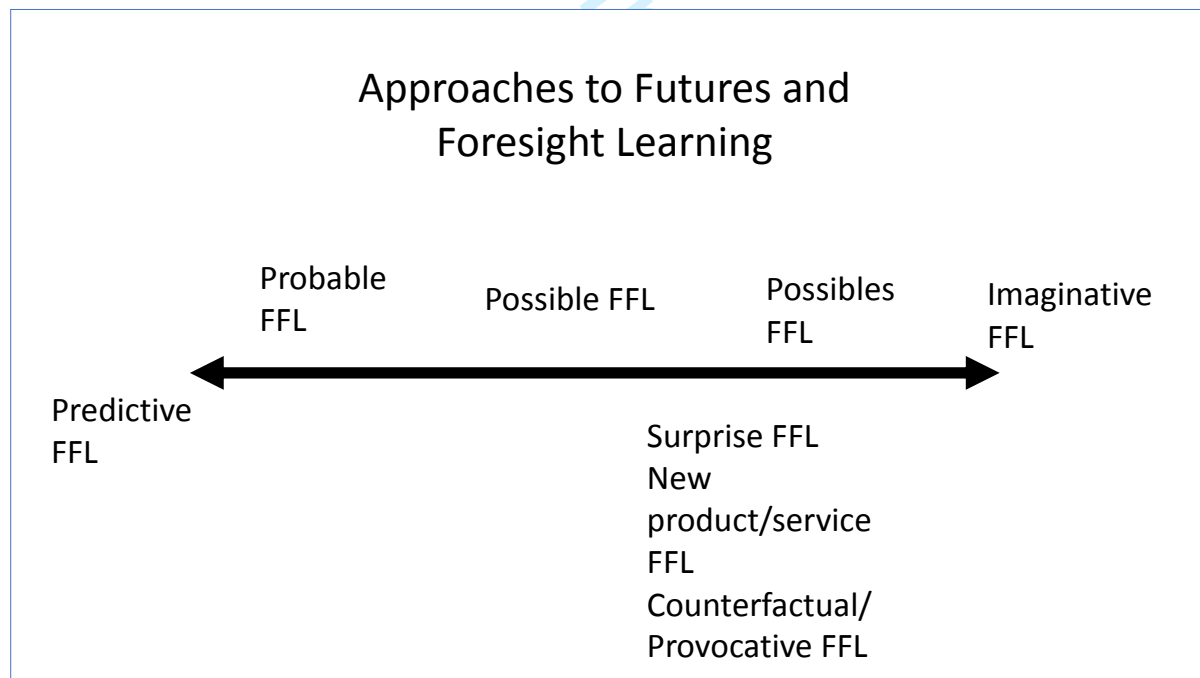


Figure 1: Approaches to FFL

The dimension shows FFL that allows prediction based on probabilities. This can involve the use of analytics, the formation of algorithms and action-based predictions that arise. Thus,

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3 for example, Watt et al. (2019) report on the approach to the introduction of predictive
4 policing technology, which allowed the prediction of burglary in particular locations at
5 particular times. Based on maps produced by a data-fed algorithm, police patrols were
6 completed at certain times, resulting in reductions of burglary. Movement along the
7 dimension allows the consideration of an imagined but possible future and even different
8 possible futures. FFL can consider desirable approaches and help prepare for less desirable
9 possibilities or surprises to act as a form of early warning for difficulties, or what some have
10 called 'canaries of the mind' (Wilkinson and Ramirez, 2010). . Harrison et al. (2018) considered
11 surprises for HRD in light of advances by machines which suggested that by 2028, there is a
12 limited role for HRD practitioners because learning would be bound by a machine to ensure
13 a perfect fit with organizational need. In addition, assumptions about the future can be
14 disrupted through provocations and counterfactual FFL by considering improbable or
15 unpreferred events (Gordon and Tordova, 2019). . At a time when the COVID pandemic has
16 caused significant disruptions to organisations, an important approach to FFL might be new
17 products and services. This allows the creation of something different or an action by
18 identifying new opportunities (Micic, 2010).
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34 Once an approach to FFL has been agreed, Fergani et al. (2020) suggest a three stage process:
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- 38 1. Scanning – the detection of trends, patterns and discontinuities by considering data from
39 different sources
- 40 2. Futuring – using futures methods to produce outcomes
- 41 3. Reconfiguration – linking the outcomes from futuring to connect strategy and then action.
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46 The scanning process can use common strategic management methods such as SWOT of
47 PESTLE but purposed towards the future. Cuhls (2010) refers to the key process of Horsizon
48 Scanning involving the systematic seeking of signals against a particular issue. Weak signals
49 could indicate emerging or early trends, positive, negative or otherwise. . In recent years, key
50 factors such as climate change, ecology and, of course, COVID-19 have fed into consideration.
51 Geopolitical factors such as armed conflict and tensions are also crucial. One approach to
52 scanning is to identify critical features of a futures issue by exploring a futures triangle
53 (Inayatullah, 2008) consisting of Pulls – image and visions of a future; Pushes – trends and
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3 patterns of change; and Weights – obstacles and barriers. These three points of the triangle
4 can be used to raise questions and speculations to explore data from different sources.
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9 The futuring process requires using key methods such as projections of possible future states,
10 often agreed as 10 years ahead but this was reduced to 5 years during the COVID pandemic.
11 A well-known method is scenarios which contain a narrative structure of plot and actors that
12 result in a destination or resolution in the future. Scenarios can also be converted into scripts
13 or theatre improvisations (Bishop et al., 2007). Scenarios are a popular method that helped
14 the Shell oil company during the early 1970s to make key decisions ahead of competitors
15 (Wack, 1985). . Despite the popularity, for some, scenarios can become too complex and may
16 limit learning. They may also become too oriented towards predictions rather than
17 understood as possibilities (Micic, 2010). . Scenarios can be presented in a reduced form by
18 using mini-scenarios while still retaining the narrative structure and key events. The outcomes
19 of futuring can be tested by considering underlying assumptions and stakeholders' views
20 before being presented to decision-makers for consideration for action in the reconfiguration
21 process. This crucial stage works with the learning from scanning and futuring that provides
22 integration into decision-making (Pulsiri and Vatananan-Thesenvitz, 2021). It is also important
23 the managers respond to what emerges and support FFL (Daheim & Uerz, 2008). Suppose
24 P&O Ferries, who sacked a quarter of their workforce, 800 staff via a 5-minute zoom (2022)
25 call in the UK, replacing them with temporary, possibly migrant, workers being paid £1.81 per
26 hour had adopted a futuring approach to their financial dilemma. In that case, they may have
27 taken a different stance.
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45 It is important to stress that these three processes contain a high potential for participants
46 and others to learn as they proceed, providing outcomes at each stage. This process can
47 become continuous as a FFL Cycle, shown as Figure 2.
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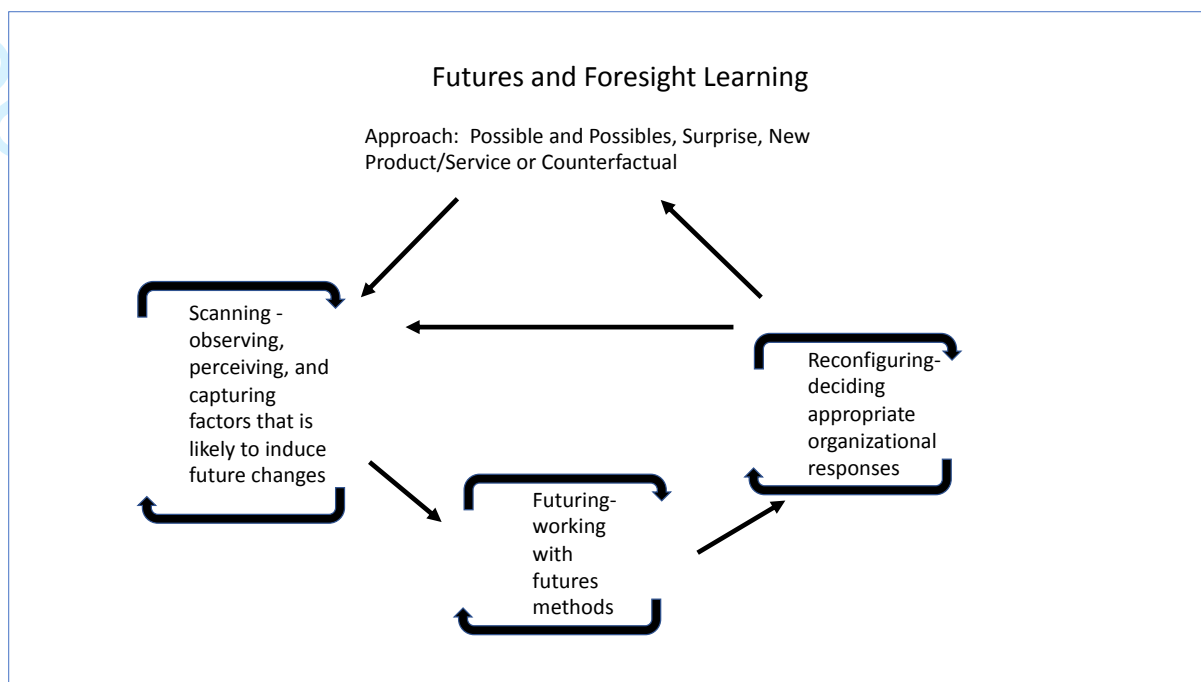


Figure 2: A FFL Cycle

Each stage allows iteration, adjustment and enhancement as findings emerge. For example, in Scanning, questions are posed to steer the research to reveal patterns and trends. This process can deepen and allow revision of questions and allow findings to be used to inform actions in the present. In Futuring, one method feeds another and the outcomes of one method can lead to action but also deepen understanding. A crucial feature of futuring is how talk of the future occurs in the present. . As St Augustine argued in the 4th Century AD, as humans our consciousness contains an awareness of past and future but only in the present. The past continues through memory and the future has not yet arrived but could be (Hernandez, 2016). Crucially, ideas for the future are primarily expressed in language, which also provides a connection to the past. This requires a degree of critical understanding of what is said and reflexivity by those who engaged in futuring. As Rogers and Tough (1996) suggested in their essay, *'Facing the future is not for wimps'*, FFL can be difficult and can involve a disturbance and challenge to existing meanings and worldviews. However, with appropriate facilitation, the learning gained can energise the process, particularly if outcomes lead to possibilities for decision-making and change in the Reconfiguration stage. There is a clear opportunity here for HRD practitioners and researchers.

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3 One of the most interesting issues for organisations is whether FFL has a pay off or can
4 improve performance thus providing value to people in organisations? These kind of
5 questions were considered in a longitudinal study by Rohrbeck and Kum (2018) on the impact
6 of what they called Corporate Foresight (CF) on firm performance. They used data from 83
7 multi-national firms from 2008 to 2015 to consider how CF could translate into action and
8 results. They found that there was a significant link between CF and performance. Such
9 'vigilant' firms who had adopted CF in a systematic way were better prepared, had higher
10 profits and improved market capitalisation. Further investigation showed that while CF's
11 causal link to successful performance could not be concluded, the vigilant firms had
12 institutionalised CF practices throughout their structures and made the link to strategic
13 decision-making. By contrast those firms that had not used CF in a systematic approach
14 performed less well. This result supported a common problem with FFL more generally where
15 it might be needed, but application lacked continuity and institutionalisation (Rohrbeck et al.,
16 2015). In addition, research on FFL shows gaps on the value added and the motivation to work
17 with it successfully (Iden et al., 2017).
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32 The failure to integrate FFL in organisations on a continuous basis and to connect outcomes
33 to strategic decision-making, in spite of evidence to show a link to successful performance
34 and profits, has been explored by Hines and Gold (2015). Based on a consideration of
35 literature and the work of Hines, a professional futurist, the findings revealed three patterns.
36 Firstly, FFL in organisations tended to be fragmented and episodic and heavily reliant on those
37 outside the organisation who could initiate FFL processes (Godet, 2000). This often resulted
38 in a linear approach rather than cyclical as shown in Figure 2. Even when FFL was present, and
39 included a specialist, the findings were often viewed as threatening or intangible which could
40 cause too much disturbance and disruption (Graves, 2007). What was missing was a capability
41 to turn ideas that were situated in the future, perhaps 10-25 years ahead, into action in the
42 present. . Von Reibnitz (2006) highlighted the need for training of teams to enable working in
43 all phases of FFL, especially in implementation when the team could be expanded to involve
44 others. Beenakker et al. (2022) highlight how implementation of FFL can be prevented by
45 differing and conflicting goals and values of participants, which need to be made explicit at
46 the start of the process and reviewed as it proceeds. This is again an opportunity for HRD.
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3 A key issue is the failure by various groups to give attention to the findings of FFL. Differing
4 interests characterise all organisations and a focus on pressing issues in the present could
5 easily squeeze out ideas for the future. People can easily claim they are too busy and need to
6 concentrate on current plans (Bezold, 2010). The FFL story is not sufficiently powerful yet to
7 challenge such conceptions. This has often resulted in what Hines (2000) referred to as the
8 'stealth positioning' of FFL where work is done but is hidden from view at higher levels and
9 therefore integration is not considered a priority. In turn this weakens the story of FFL to show
10 the value in the present and this requires completion of the FFL cycle on a continuous basis.
11 This opens a gap for HRD. .
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23 **Towards FFL in HRD**

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27 As we identified earlier in this paper, writers such as Lee (2001) have resisted a closed
28 meaning of HRD based on different practices worldwide. Despite Gold et al's (2003) call for
29 an agreed meaning of HRD to support its professionalisation, Lee (2016) sustained her
30 position as meanings of HRD expanded with the potential for development with other
31 disciplines. More recently, even before the COVID pandemic, it was argued that our
32 workplaces were becoming more complex, diverse and ambiguous, driven by changing
33 technologies, globalisation and demography (Loon et al., 2020). The arrival of the pandemic
34 and then tragically geopolitical devastation has only added to the difficulties and
35 uncertainties that organisations and those who own and work for them face. This creates a
36 gap for FFL and, we argue, its inclusion in an expanded meaning of HRD.
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47 While Hines and Gold (2015) identified some of the constraints and problems that prevented
48 the acceptance of FFL, they were also able to present the means toward integration in
49 organisations. This was based on some key stages. Firstly, an awareness of what FFL could
50 bring but secondly, the importance of attracting organisational actors as clients into
51 conversations that appreciate the potential for FFL. Such actors become internal champions
52 for FFL who can bring others into a process to form a FFL project. This is the third stage leading
53 to the project's completion and an ongoing iteration to capture learning and add value. If
54 success is recognised, this provides the basis to spread the word of the capability. In
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3 particular, if a link to strategic decision-making is provided, the value becomes recognised by
4 others and leads to a stage of institutionalisation whereby FFL is formally considered and
5 practice is expanded. . Interestingly Hines and Gold conclude by calling for research into how
6 the proposal for integration of FFL can occur.
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11 One response to this question is through an HRD intervention. Thus Gold and Pedler (2022)
12 show how using the ideas presented by Hines and Gold (2015), they worked with insiders of
13 two organisations to propose action learning programmes to deliver FFL. This would allow FFL
14 methods to be introduced gradually over time but in response to issues and questions raised
15 by the participants. By setting the programme of FFL within an HRD process such as action
16 learning, there could be a synchronicity between the interactable problem of an uncertain
17 and even unknowable future and learning as a process through taking action and reviewing
18 the results. Action learning is an ongoing process with groups meeting every 5 to 6 weeks
19 with action by participants completed between meetings. This also prevents FFL from
20 becoming a one-off event such as a workshop or even a short project. Action learning as
21 delivery process countered the episodic difficulty for FFL, identified by Sarpong et al. (2013).
22 Further, as outcomes began to appear, Gold and Pedler (2022) were able to report how a case
23 was being made for its continuation and connection to organisation strategy. . Figure 3 shows
24 how the link can be made between FFL and strategic decision-making.
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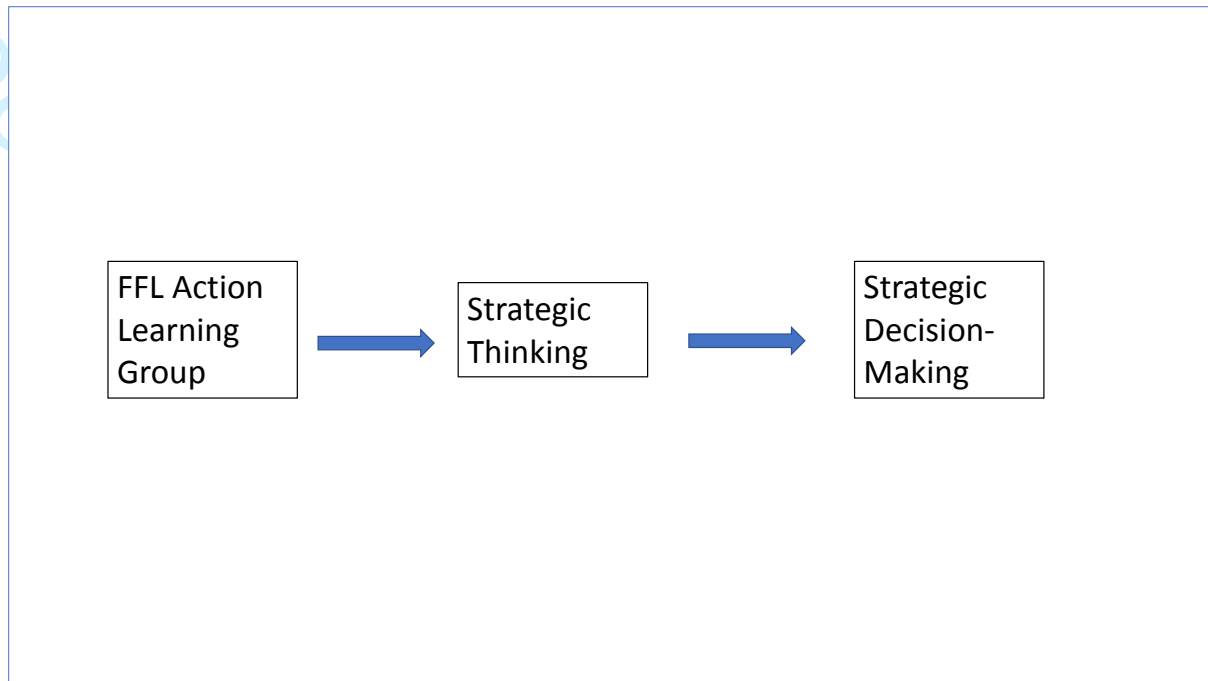


Figure 3: Linking FFL to Strategy

The benefit of a FFL Action Learning Group is that there is potential to provide value-added outcomes for people and organisations on a continuous basis. Through repeated cycles of the learning process shown in Figure 2 and movement to different FFL activities as shown in Figure 1, the outcomes will provide benefit if they are then considered by the creation of a strategic thinking role. . The introduction of FFL in a financial service organisation which we facilitated, quickly resulted in a cost saving of £0.5m. Such a quick return soon became part of the narrative of value-added associated with FFL and HRD staff gained recognition for this outcome.

Goldman et al. (2015) have argued for the need for developing strategic thinking skills in organisations, including key features such as scanning, questioning, critique and testing of the direction of an organisation allows new and imaginative possibilities. Linking to the concepts of moral and ethical imagination, (Brenkert 2019; Rorty 2006) the imaginative element of the process may also open the door for consideration of new ethical perspectives and possibilities. The enactment of a strategic thinking role links ideas emerging from FFL and other sources, which then can be fed into decision-making for the direction of an organisation. As there are a range of factors that can affect strategic thinking such as research and development and technological change, such factors can also be considered in FFL and

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3 then formed for consideration in decision-making (Shaik and Dahir, 2020). This integration
4 provides a key route to improving performance. FFL also fosters an organization's capability
5 for creativity and innovation (Fergani, 2022). . For example, in a recent programme we
6 facilitated, a group of architects identified a range of new income streams such as designing
7 and developing their own furniture as part of an interiors offering and a landscaping service.
8 FFL can also, crucially, safeguard against failure (Boston, 2017). In a recent example with a
9 real estate business in Nigeria again which we facilitated, FFL findings resulted in a decision
10 to reposition marketing efforts to protect against the high potential of worsening internal
11 sales.
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21 Burke (2021) argues it becomes crucial to link FFL to leadership so they can fulfil a 'primary
22 role' to create 'actions, culture, and strategy for a preferred future for the organisation'
23 (p.88). Gold and Pedler (2022) show that as a growing sign of its acceptance in one
24 organisation, FFL was also included in the organisation's leadership programme, delivered to
25 5 cohorts of 15 participants in the two years before the disruption of COVID. The HRD team
26 designed the programme with the involvement of FFL action learning participants.
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33 If anything, the tumult of the last 15 years which is continuing puts the onus on leaders to
34 reduce their own and staff anxiety. It is argued that leadership development is a key feature
35 for any organisation and is an HRD sphere (Shet, 2021). If vision strategy, people and
36 innovation are important components of leadership, the inclusion of FFL needs to become a
37 key feature of leadership development programmes. The inclusion of these would help to
38 meet some of the behaviours identified as critical by the CIPD for responsible leadership in
39 times of uncertainty and crisis (Hope Hailey and Brown, 2021) and those specified in the CIPD
40 Professional Map launched in 2021, (CIPD, 2021), particularly business acumen and insights
41 focussed behaviour. Furthermore, FFL can contribute to the call for relational leadership that
42 is enacted through relationships and network of relationships (Clarke 2018). Indeed, Stewart's
43 (2015) argument that HRD practitioners are change agents who help and partner with
44 managers in the facilitation of organizational change programmes within their own or host
45 organizations, is perhaps more important than ever to consider in the post-COVID
46 organisational landscape. This is why we argue that FFL has an important place. Its role within
47 the interplay of leadership, culture and employee commitment specifically through building
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3 commitment amongst organization members and anticipating required managerial responses
4 to changing conditions is now key (Hamlin, 2016).
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8 The delivery of FFL, whether via action learning or leadership development needs facilitation.
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10 If we consider the key features of FFL presented in Figure 2, it becomes crucial at each stage
11 that a degree of guidance is required as learners explore new ideas and processes of learning.
12 Scanning, for example, requires an ability to explore a large variety of data sources to find key
13 trends, patterns and discontinuities. This involves familiarity with available search engines
14 and accessible databases (Fergnani et al., 2020). Facilitators need to learn how to work with
15 sources to obtain results. This includes access to academic chapters and many documents
16 provided by consultants, professional bodies, and specialist agencies. The futuring phase
17 requires working with different FFL methods and timing their presentation. There are many
18 methods and facilitators that may initially find working with experienced futurists essential.
19 Reconfiguration means linking outcomes from scanning and futuring to strategy. This means
20 drawing out implications at each stage and presenting them for consideration beyond the FFL
21 group. However, this represents a key role for HRD practitioners as facilitators since FFL can
22 be understood as a knowledge-creation process (Heino and Hautala, 2021) that feed strategic
23 decision-making. Further, findings from FFL can be blocked or stymied through the lack of
24 support from others, particularly leaders who have not been part of the process. HRD
25 practitioners as facilitators can seek to overcome difficulties and move towards building the
26 case for FFL, as Hines and Gold (2015, p. 107) suggest 'from the ground up'. They can achieve
27 this by presenting a narrative that persuades others of the validity of FFL by evaluating the
28 outcomes at each stage to create a virtuous discourse. In one organisation we worked with,
29 there was a deliberate effort to find members of the leadership team who could be involved
30 the FFL process. This included leaders becoming participants in the FFL action learning group
31 and highlighting FFL at the annual leadership conference through a series of TED talk
32 workshops (repeated 8 times in one day). .
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53 This represents a significant opportunity for the HRD profession to move from weakness
54 towards strength. FFL may allow the required steps to improve credibility with managers of
55 HRD interventions that are research-informed - one of the barriers that HRD has faced in
56 bridging the 'research-practice gap' in HRD and management (Hamlin, 2015, p.16). Given the
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3 disruption of COVID-19 and the breakdown of traditional forms of learning and dialogue
4 between work teams and leaders, FFL is an important addition to how we talk about learning
5 at work.
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10 A further opportunity for the HRD profession is provided by considering the predictive pole
11 shown in Figure 1 which relates to prediction, particularly with respect to issues concerned
12 with artificial intelligence and machine learning (AI/ML). As advocated by Harrison et al.
13 (2020), HRD needs to become a hybrid profession by working more closely with Data
14 Scientists and others who develop such technologies. This requires learning by HRD
15 professionals to talk expertly about the work and skill of others through the development of
16 what Collins (2004) has called interactional expertise. This will allow HRD professionals to talk
17 and influence the direction of AI/ML projects. This includes raising ethics and human values
18 issues, which can also identify opportunities for creating collaborations between stakeholders
19 to ensure human values are fully considered in AI/ML projects (Schwab and Davis, 2018). A
20 crucial role for HRD as a hybrid profession is to become familiar with the way algorithms are
21 created or 'trained' based on inputs which 'teach' an algorithm to work towards a desired
22 state. However, there are dangers that such inputs could incorporate bias which
23 contaminates decision-making. A well-known example was a AI/ML programme developed
24 by Amazon to review applications made by job seekers, which discriminated in favour of men.
25 The programme was postponed in 2018 to allow a better and more diverse process to be
26 developed (Dustin, 2018). Training of AI/ML has to involve HRD practitioners to improve the
27 quality and fairness of decisions (Fuchs, 2018). . Further, as hybrid professionals, HRD would
28 be able to prevent becoming the victims of AI/ML and to become human-centred co-
29 participants, finding opportunities for their own development and for others. For example, as
30 argued by Ardichvili (2022), AI/ML has a potential to reduce the number of experts in
31 organisations and also lead to more people working in isolation. In turn, this can result in
32 reduced informal and formal learning and development opportunities. Therefore, it is
33 suggested that HRD can consider where AI/ML might lead to a loss of human skill and
34 expertise and focus on new possibilities for 'complex problem solving' (p. 91). . This is bound
35 to be a progressive process as the technological capability advances but it is a process that
36 HRD practitioners can embrace. FFL methods can lead to solutions for a wide range of
37 stakeholders.
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Conclusion

In a recent mapping exercise of more than 3000 articles in HRD journals completed by Shirmohammadi et al. (2021) that considered the last three decades, five clusters of key topics were identified. The authors then suggest the ways to influence the future of HRD through boundary work. While their remarks are focussed principally on HRD researchers, we suggest that HRD practitioners can also draw some direction.

Thus as part of a collaboration, HRD practitioners can look beyond its current interests towards those beyond its boundaries. Here we advocate FFL and the associated issue of ML/AI where we highlight the need for HRD to become a hybrid profession. . In particular, the importance of ethics and fairness in relation to ML/AI requires HRD practitioners to take a greater and earlier interest in projects of change that involve the training of algorithms. HRD needs to become a voice that provides a critique of ML/AI fairness (Ghosh and Dasgupta, 2022).

We suggest that FFL can become an essential and value-adding offer by HRD practitioners. As has been demonstrated by research (Rohrbeck et al., 2015), FFL can be associated with better organisational outcomes such as higher profits and better preparation for problems where FFL practices are systematically and continuously adopted. Further, as we have demonstrated, FFL is a learning process with a variety of opportunities for HRD practitioners to show they are adding value. . However, as we have suggested, for FFL to become established does require to some degree, a leap of faith. . Organisations that focus on current results in response to the demands of key stakeholders often reinforce a culture for the short-term and this makes the implementation of FFL with its long term orientation more difficult to accept. Nevertheless, there is growing interest in how organisations become sustainable (Haessler, 2020) as a longer term commitment and if HRD can collaborate with this agenda, there will be a significant opportunity to apply FFL. . The outcomes that emerge from any FFL process become the evidence to add to a virtuous discourse that shifts the culture to allow both short term and long term thinking.

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3 For HRD researchers, while FFL is not yet on its radar, we would argue that the uncertainties
4 of the future require that more attention be given to what might lie ahead. Indeed, HRD
5 researchers need to ask the question: What is the future of HRD research? In addition, if our
6 call for FFL to be included in the practice of HRD, such practice will itself provide new
7 pathways for HRD research. Further research questions might include:
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- 14 • To what extent is FFL practiced in organisations and what role do HRD practitioners
15 play in delivery?
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- 17 • How does FFL impact on organisation behaviour and outcomes? What new products
18 and services emerge from FFL?
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- 20 • What new skills are required to deliver FFL?
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- 22 • Can FFL enhance the status of HRD practitioners in the work place and its role in
23 decision-making?
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- 25 • How can the HRD profession develop as a hybrid profession with respect to ML/AI?
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30 As HRD, like all professions, considers its position and value in a turbulent and dangerous
31 world, in this paper we would like to suggest that there is space to consider FFL as a
32 challenging but important addition to how we talk about learning at work. We have argued
33 that in the spirit of allowing continuing divergence in the meanings of HRD, FFL offers a
34 significant opportunity to enhance the importance of HRD in organisations and beyond. At its
35 centre, FFL involves learning by people, groups, organisations and machines and this has to
36 be of concern to HRD. Further, as we have shown, FFL offers those involved in HRD a
37 significant opportunity to transfer ideas into practice that have an impact on organisation
38 sustainability. The content of the paper provides some frameworks for application in practice
39 by HRD professionals and we commend these as a starting point in designing FFL based HRD
40 interventions. In addition, future research will be useful to investigate our claims from the
41 perspective of further empirical data drawn from application of FFL in HRD practice.
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