

# LEARNING AT THE SPEED OF CHANGE

*Empower learning, don't just manage it*

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## INTRODUCTION

In this paper we take stock of the learning challenges that today's organizations are faced with and we propose a conceptual framework for how Learning & Development (L&D) organizations can deliver on the new learning agenda and be at the forefront of the next revolution in learning.

By combining insights into how individuals can develop a learning mindset and organizations can nurture an agile learning culture with insights into the latest developments in learning technologies we propose a holistic understanding of how a large untapped potential can be realized.

The approach presented in the following sections puts the empowered and enabled individual at the gravity center of learning.

From this learner-centric position we present our ideas on how L&D organizations can deliver on the new learning agenda by designing a learning environment and by engaging and empowering people to take ownership over their personal learning agenda.

## CONTENT AND STRUCTURE OF PAPER

In **Part 1** of this paper we outline the current stage of learning in organizations and identify a set of challenges and pressing issues calling for fresh thinking around how to deliver on the new learning agenda in today's organizations.

In **Part 2** we present a conceptual framework for a learner centric approach for L&D to deliver on the new learning agenda. We examine this from both a learner's perspective, from a learning offerings perspective and finally consider different methods for effectively matching individual needs with the optimal learning offering for the given situation by use of emerging learning technologies.

In **Part 3** we take a holistic approach and consider some of the organizational and cultural factors that must be in

place to fully take advantage of the new approach by developing an agile learning culture that supports the empowered learners.

In **Part 4** we conclude and summarize our findings in a formula for Learning effectiveness in empowered learning environments and share our views of the most important steps L&D organizations can take to get started on the new path.

## PART 1: A BRIEF LOOK AT TODAY'S LEARNING

Below, we outline the current stage of organizational learning and identify a set of challenges that outline the new learning agenda.

### Learning is topping the CEOs agenda

Technological, economic and social changes are moving the frontiers of learning. Rapid shifts in competency needs is the order of the day in many organizations due to new business models, technologies and working methods.

Talent and competencies have become the scarcest resource for growth in many companies, not capital or production capacity. Both hard/technical and soft/service skills are in great demand and the war for talent is increasingly taking place on a global scale.

After years of neglect, learning and development has over the last few years climbed to the very top of the CEO agenda (*Gartner, 2019*).

### Are CHROs investing right to deliver on the learning agenda?

In the wake of these rapid developments it would be only natural to expect a strong focus on capability building and a plethora of new types of learning activities in organizations.

At first glance this expectation is sustained as the investment in training facilities and learning technology is growing at high rates (7 %) and the learning and

development industry is totaling 240 billion dollars in 2018 (Bersin, 2019).

Though, the investments are not always delivering the expected learning outcomes. Often because the focus is on efficiency and cost reductions. As much as 44 % of CHRO's investment in technology is still motivated primarily by costs (PwC, 2017).

Focus on the learner and learning experience is often long down the list when selecting and implementing new learning technologies, and L&D leaders are aware of this.

Research by Brandon Hall Group on LMS trends report that L&D scored their existing technology an average Net Promoter Score of -57 in 2015 and points out that is has worsened from earlier years (Brandon Hall, 2015). The biggest complaint from L&D leaders is that the technologies being implemented today are lacking "ability to meet future needs".

New ways of developing and distributing learning resources are starting to emerge as new technologies offer alternative ways to approach and deliver on the learning agenda of both the organization and the individual learners.

It is our claim that the poor learning technology NPS are caused by a combination of:

- A cost focus prioritized over a value creation focus
- Investments dominated by traditional "software implementation" thinking – rarely taking advantage of the new opportunities

In the following we will outline how a value creation-focused and transformational approach can deliver higher effectiveness on investments in the learning agenda.

### **Empower, don't just manage learning**

As pointed out by McKinsey & Company in an article outlining the digital future of Corporate Academies:

*"L&D can't own detailed knowledge about the skills a diverse workforce needs, but employees can be empowered to share knowledge and take ownership for personal growth and development" (McKinsey & Company, 2016)*

This statement is indeed a profound one. It rocks the foundation of the well-established HR thinking and self-image. HR and the L&D team must come to realize that they are no longer the experts and gatekeepers on what

and how people should learn and develop. Instead they should see themselves as facilitators and enablers of learning. learning at the speed of business. The new role will be to provide resources promoting a learning culture in the organization and stimulate a learning mindset in people.

To remedy the next revolution in learning the individual learners must assume accountability for their personal learning agenda and create personalized learning journeys by combining learning resources offered through L&D but also a range of other sources.

New personalized and adaptive learning tools are needed to provide flexible pathways for learning.

Introducing new learning technologies that set learning free and enable the individual to take charge of maintaining and upgrading his or her competencies for current and future jobs is key to deliver learning at the speed of change.

Though, just leaving the accountability to develop future skill sets to the individual will not guarantee success. In order to fully understand the current state of learning in today's organizations we need to take a closer look at the learners and the assumptions that learning, as we know it today, is based on.

We will do this in the next part of this paper and in addition present a framework on how to design learning content and formats in order to match the changing needs as outlined above.

## **PART 2: FRAMEWORK FOR A LEARNER CENTRIC L&D APPROACH**

In the following we present a conceptual framework for a learner centric L&D approach to delivering on the learning agenda as outlined in Part 1.

We develop the framework from three focal points:

- a) Learner's perspective
- b) Learning offerings perspective
- c) Combined perspective - matching individual needs with optimal learning offerings

### **A) LEARNER'S PERSPECTIVE**

#### ***A closer look at today's learning environment and learners***

In a recent survey-based study on the "Modern Learner" (Bersin, 2018) a sample of 2,000+ knowledge workers

from 9 countries report that around half of the population spend just around 1 % of their working time on training and development activities adding up to 24 minutes per week. On average people report that they are interrupted every 5 minutes, spending too much time on reading and writing e-mails and attending meetings no directly related to work-tasks, and some even check their smartphone up to 9 times per hour. This paints a picture of a distracted and overwhelmed work force.

Interestingly, the same study found a small segment (7 %) of individuals who combine intense learning activity with high job satisfaction.

This segment called “Heavy learners” is able to strike a balance that allow them to both purposefully master their work-life and feel empowered to realize their potential and career goals.

Heavy learners spend on average more than five hours per week on activities related to learning new skill sets. Compared with the rest of the population Heavy learners are up to:

- 74 % more likely to know where they are going in their career
- 48 % more likely to have found a purpose on their work
- 47 % less likely to be stressed at work
- 39 % more likely to feel productive and successful

The relationship between engaging in learning activities and job satisfaction, career outlook and productivity is a very clear and positive one. But it is also apparent that individuals offered similar working environments and learning opportunities respond very differently.

As the study indicates, only a small part of the population is able to fully seize the learning opportunities and harvest the benefits from continual development.

Therefore, offering relevant learning opportunities is a *necessary but not sufficient* condition for people to take charge of developing the competencies needed to build careers and flourish in their work life.

In order to create the right conditions for empowered learning we therefore need to better understand the mindsets of learners and also the significance of the learning environment and culture in organizations.

The purpose of this inquiry is to identify possible intra-personal and organizational levers that can be pulled in order to enable empowerment of the individual learner.

Firstly, we explore the significance of the mindset of the individual learner and how to cultivate it for empowered learning. Later, in Part 3 we explore the organizational and cultural aspects of empowered learning.

### ***Cultivating the learner's new mindset***

To start off a discussion on how to best enable and empower individuals from a L&D perspective a few insights from the Psychology of learning could be relevant.

#### ***Dweck: Learning from a growth mindset***

The work of Prof. Carol Dweck from Stanford University holds a prominent position in research on how individual learning capacity is impacted by the *individual's own assumptions* about his or her learning capacity (Dweck, 2006). Dweck has coined the notion of *fixed versus growth mindset* to distinguish between two sets of assumptions about our ability to learn.

Simply put, whether a person believes that intelligence is something that can develop and grow (growth mindset) versus a trait that is unchanging (fixed mindset) can have profound impact on self-perception, motivation for learning, and ultimately achievement.

People with a growth versus a fixed mindset approach learning fundamentally differently:

Examples of growth mindset assumptions are:

- I can learn anything I want to
- When I am frustrated, I persevere
- I want to challenge myself
- When I fail, I learn
- Tell me that I try hard
- If others succeed, I am inspired
- My effort and attitude determine everything

Examples of fixed mindset assumptions are:

- I am either good at it, or I am not
- When I am frustrated, I give up
- I do not like to be challenged
- When I fail, I am no good
- Tell me that I am smart
- If others succeed, I feel threatened
- My abilities determine everything

The implications for organizational learning (and people leadership) are potentially wide as the two sets of assumptions can be reflected in how individuals are assessed, incentivized and supplied with learning resources.

We can learn from the research on growth vs fixed mindset that the learning resources, feedback processes and guidelines on learning should reflect a positive and

inclusive growth mindset promoting that everyone in the organization can benefit from adopting a positive attitude and behavior towards learning.

*Buckingham: Focus on strengths – not just closing gaps*  
Similar points can be made about the ongoing discussion of whether learning should mainly focus on closing competency gaps or whether a strength-based approach should be adopted.

In this field Marcus Buckingham has delivered strong evidence that building on personal strengths and compensating for weakness through others is the better approach to performance and career success (*Buckingham, 2015*).

This is among other reasons due to the simple fact that individuals are much more motivated to hone natural strengths and reaching for their full potential compared to filling competency gaps that are not deemed detrimental to careers.

In addition, the strength-based perspective will open new pathways into self-development as learners seeking self-insight as a “strength-finding” activity representing a more promising approach than working on identifying personal weaknesses. Along the same lines, seeking feedback from others become a more rewarding experience that will stimulate reflection and learning when approached from an appreciative and constructive perspective.

*Csikszentmihalyi: Learning in the flow of work*

A final perspective on the mindset of the learners is to focus on how learning activity itself is experienced. When learners report that there is very limited time for learning activities it rests on the assumption that learning is something separate from performing core work activities. This assumption is only true insofar the learning activities by design are disconnected from everyday work. Traditionally, learning has been packaged as coursework and classroom training which means precious time away from work.

From Psychology of learning we have a strong case for changing the basic assumptions on how, when and where we learn. Learning is at its best when it becomes part of the flow of work.

The flow theory of learning is developed by Mihaly Csikszentmihalyi (Csikszentmihalyi, 2008) giving new insights into how people actually learn and find fulfillment in work when they are mentally absorbed and curiously experimenting with different ways of solving challenging tasks.

Taking these insights into L&D practice will promote a positive mindset around learning activities and help changing assumptions about learning in ways that will stir curiosity and create a pull from learners for developing new skills set.

Today, we are able to support “learning in the flow of work” with emerging “micro-learning” resources that are flexible and bite sized to fit into the daily flow of work. We will go deeper into the new learning content and formats in the section below.

## **B) LEARNING OFFERINGS PERSPECTIVE**

### **Building solutions for empowered learners**

Now it is time to explore how learning offerings can be designed to best support empowered learning by facilitating learning in the flow of work and thereby meeting the pull from learners created by re-positioning learning as a rewarding and integral part of everyday work.

We do this by examining how the building blocks of learning can be re-designed to reflect the needs and preferences of learners in order to create a personalized learning experience.

A learner centric approach must reflect that the learner at a personal level “remains the same” over time – personality traits and learning style is stable over long time spans – but recurrently is faced with changing needs when undertaking new job-tasks or being promoted to a new position. Therefore, the learning resources offered should both reflect personal preferences and specific situational needs.

This implies that learning content and learning formats must be designed in ways that enables flexibility and easy identification of the optimal mixes and matches of learning offerings to the learner.

As opposed to developing traditional learning offerings, empowered learning builds on a design-criteria that content and format to some extent must be separated in order to be able to create the right personal match and learning mix. We will therefore first examine content and then formatting.

Finally, in section C below we will combine content and formatting to explore how the matching and mixing of learning content and formats will enable empowered, personalized learning experiences in the flow of work by use of emerging learning technologies.



### ***Content – massive, relevant and curated***

The old saying that “content is king” still holds to be true. L&D organizations should also in the future assume accountability for offering relevant learning content at the right time for the learners. But the way this role is filled is due to radical change as we will outline below.

Learners of today are not restricted to settle for the offerings from L&D when searching for learning content that can satisfy their needs.

With very little effort learners can expand their search for knowledge beyond the organization’s L&D offerings and plunge into the vast ecosystem of external portals, platforms and providers of learning resources.

The amount of easily accessible and free, or low priced, learning content of relatively high quality has exploded over the last few years. The rise of massive on-demand online courses (MOOCs) has democratized access to training within almost any field.

Social media (SoMe) platforms such as YouTube hold vast amounts of video-based learning material, LinkedIn has recently launched an e-learning portal hosting 13,000+ e-learning courses, and Google will direct the learner to any corner of the Internet’s endless volumes of learning material on any topic.

Paradoxically, as the amount of learning material available is expanding exponentially, finding the relevant content increasingly becomes an obstacle to learning. We tend to spend too much time searching for the knowledge we need ending up finding only fragments of useful content. All too often we realize that the learning content is only partly relevant in the specific organizational context and use situation. We might as well speculate if the source is sufficiently reliable and credible to be trusted.

This is where the new frontiers of L&D are emerging. Learners will increasingly need professional support in determining the quality, relevancy, application and credibility of learning content in order to ensure effective learning.

*Content curation* is the discipline of validating learning content in order to guide or qualify the choices of empowered learners. This new area for L&D can be approached in different ways. Some L&D organizations hold strict criteria for what specific content learners should have access to. Others have adopted a more relaxed approach where the learners contribute to the content curation process by rating the relevancy and impact of prospect learning objects. If learning objects

are consistently rated low, or no longer consumed, the content is simply decommissioned.

### ***Formats – size matters, smaller is often better***

Learning content can be distributed to learners by means of a multitude of learning formats. For instance, a specific training need for a newly appointed senior manager could for instance be addressed in the three following ways:

- As open enrollment training at academic learning institutions for example a one week on-campus Executive education development program at a renowned business school
- As series of internally hosted and facilitated face-to-face workshops and/or online webinars with content and delivery methods carefully designed to reflect learning principles defined by L&D
- A self-paced learning format where the learner at own discretion is consuming a mixed bundle of articles, videos, podcast and e-learning combined with on-the-job assignments, peer learning, 1:1s with immediate superior or coaches

All three learning formats can be backed with arguments that one solution for various reasons is better than the others. Learning theories have for the last decades suggested that training should be seen as a process covering the steps “before”, “during” and “after” structured, often face-to-face, training events (*Brinkerhof, 2011*). More recently, a training mix reflecting a 70-20-10 distribution of learning at work, learning through others and course-based training is seen as best practice in learning (*Lombardo & Eichinger, 1996*).

These learning theories rest on the assumption that an optimal learning process exists regardless of the content themes or preferred learning style of the learner. We believe that this approach is due to change as we propose that the learner and the learning scenario should be at the center of learning.

From this perspective there are (very) basically speaking two scenarios that a learner can be faced with:

- 1) A significant change in job-role where dealing with a range of transition themes and development of new skill sets is needed in order to reach job-performance. An extreme example could be a change of job into a more senior

managerial role moving into a new industry and geographical region

- 2) Ongoing developments and additional tasks in the current job-role that call for smaller adjustments, brush-up or upgrading of existing skill sets. This could be as simple as to get hold of the extra functionalities in a new release of Microsoft Office or, more demanding, to prepare for a difficult conversation with a disengaged employee

From these two<sup>1</sup> cases it hopefully becomes clear that learning formatting should reflect the needs of the individual learner and not necessarily a specific theory of learning or learning design model.

The best way to approach learning formatting would be to distinguish between “micro” and “macro” learning when considering how to best support the learner with learning content in the right shape and form.

*Micro learning* can be described in terms such as:

- Just in time
- Bite sized
- Tailored for application
- Easily accessible
- Self-directed

Examples of micro learnings are:

- Instructional videos (wikis)
- Guidelines and reference-manuals
- Tools, tips and checklists for completing specific tasks
- E-learning courses with introductory or brush-up content on specific themes
- Short articles and podcasts on specific topics
- Stretched assignments and supervision/coaching for on-the-job learning

*Macro learning* is:

- Time bound and planned
- Involving face-to-face/virtual attendance in facilitated sessions with other learners and preparation/follow-up material and activities
- Theoretical as well as application-oriented content
- Pre and post assessment

Examples of macro learnings are:

- Onboarding training courses for new hires
- Internal leadership pipeline development programs

- Personal and talent development programs including personality profiling, coaching sessions and stretched assignments
- Open enrollment training courses conducted by external providers, online and/or face-to-face

To some extent the two categories of micro and macro learning could overlap as content formats from micro learning can serve as preparation or reinforcement in a macro learning program format.

Still, we believe that the two categories represent a useful way to approach learning formatting as it reflects the use situation and need of the learner. In practice, a learner will need a macro learning experience every time the job-role radically change or a promotion to a job that requires new skill sets. In all other instances the learner will need micro learnings in order to brush-up or upgrade skills already covered by basic training or job experience.

***Special case: Learners delivering learning***

The emerging empowering learning technologies also bring resources to the individual learner that can democratize access to the knowledge of internal experts and facilitate the processes of externalizing tacit and embedded knowledge in organizations (*Nonaka & Takeuchi, 1995*).

*Learner-generated content* present a range of opportunities and possible benefits for both learners and the organization:

- Learners reinforce and codify their personal knowledge and skills when sharing information and knowledge with colleagues
- The body of internal, relevant and contextualized learning content can grow at high rates at a relatively low cost
- When knowledge and methods are shared in the organization the learning culture is nurtured and practices are aligned
- Also, this way of externalizing and codifying individual’s knowledge in demand and key to the success of the organization brings value – the organization becomes better at “knowing what it knows” and define the skills key to performance
- Experts can make themselves available to learners and be acknowledged for passing on their knowledge and skills
- Learner-generated content can be curated through ratings and feedback from peers freeing up resources in L&D

<sup>1</sup> A third case could be that radical and rapid technological change will create a shift in competencies and skill sets needed in order to perform in

the jobs or even profession or industry. In such cases re-skilling at educational institutions could be implied.

A special segment of learner-generated content that we have come across is “People as content”: People with high skill levels make themselves available to others as a “packaged” learning activity. Learner-conducted activities can range from:

- Offering to answer questions from colleagues within selected key topics reflecting their area of expertise
- Providing feedback on colleagues’ work
- Offering 1:1 peer coaching
- Giving webinars on selected topics
- Hosting internal seminars and workshops

Some L&D organizations restrict learner-generated content to groups and networks where learners can sign up to interact and exchange knowledge, experiences and methods. Other L&D organizations see learner-generated content as learning resources that should have the same status as other types of learning content.

We believe that learner-generated content should have a prominent position among learning resources and we are confident that rating, feedback, commenting etc. will single out content of low relevance or poor quality.

Now it is time to explore how learning content and formats can be matched into relevant learning offerings for the individual learner.

This is where the emerging empowering learning technologies are playing a crucial role as the complexity of the task of matching learning offerings the individual learners’ unique needs quickly goes well beyond human capacity.

### C) COMBINED PERSPECTIVE – MATCHING INDIVIDUAL NEEDS WITH RELEVANT LEARNING OFFERINGS

As mentioned above, when the amount of learning material available grows identifying relevant learning content increasingly becomes an obstacle for the individual learner to take charge of competency building.

This is a main reason why even well-equipped content libraries based on Learning Management Systems (LMS) that store, but do not distribute or personalize, learning content often have rates of low utilization.

To address this challenge a new breed of learning platforms is emerging: Learning Experience Platforms (LXPs).

The expression that now has become an industry term was coined by Josh Bersin (*Bersin, 2018*), based on a common set of key functionalities of LXPs as they:

- Present content in a “Netflix-like” interface, with recommendations, panels, mobile interfaces, and AI-driven recommendations
- Accommodate any form of content, including articles, podcasts, blogs, micro-learning, videos, and courses
- Are social, and include social profiles which connect content to people to create authority
- Have paths or learning journeys allowing the learner to follow content to a logical learning outcome
- Have some form of assessment and often indicating the learner’s achievements based on badging or certification
- Make it easy to for learners to publish own content as an individual
- They are mobile, interactive and inspiring to use, fast and easy to traverse and have great search and embedded learning features

### Case-study<sup>2</sup>: Learning Experience Platform at Citi

Whilst not a client of Triggerz, one of the leading companies in taking advantage of the new LXP technologies is Citi, one of the world’s largest financial institutions with 200.000+ employees present in more than 100 countries.

Citi uses the overview below to outline their learning architecture (by courtesy of Digital Learning and Talent Technology at Citi, status March 2019):



<sup>2</sup> The case is prepared based on interviews and a conference presentation in Copenhagen, Feb 2019 made by Peter Fox, Head of Digital Learning and Talent Technology at Citi.

This architecture places the learner at the gravity center of the learning universe by using an LXP to source and match content from a multitude of internal and external providers to the individual learner.

The existing LMS in the Citi learning architecture is just one among a range of content sources. Learning is set free, and even content creation tools are to some extent at the individual learner's disposal – the tools under the “Creation” header in the illustration above.

A growing host of companies are shifting towards a learner centric architecture powered by the multi-source content matching functionalities of LXPs.

This trend is commented by Bersin in the following statement on the possible future of LMS' (Bersin, 2018):

*“While I don't see them going away, they are now only one element of the landscape, as companies move to a more employee-centric model and embrace many forms of content”*

The Citi learning architecture illustrates how the future of learning rests on access to learning resources from the larger ecosystem surrounding the company without dominance of a single learning platform.

Below we will outline the basic techniques that facilitate the matching of content and learning formats to learners by proactively recommending specific offerings to the individual learner thereby creating an engaging and personalized learning experience.

### ***The LXP's core matching techniques – Outside-in and Inside-out***

LXPs play a key role as a single interface between the learning content and the individual learner. The main task of the LXP is to orchestrate content from many sources and based on intelligent matching techniques present relevant personalized learning offerings to each learner.

With a metaphor, the traditional LMS approach allows companies to build large libraries where learners can go and possibly find anything they might ever need (but rarely do). In contrast, the LXP represents the insightful and proactive librarian coming to the potential reader with a personalized selection of relevant books – based on intelligent matching.

Intelligent content matching technology automates the process of searching and recommending the right

content for the right person at the right time by matching learning offerings to the learner's specific profile, needs and learning context.

There are fundamentally two different methodologies for matching content to learners that we call “Outside-in” and “Inside-out”. We will briefly outline both as they are key to building efficient matching practices and each have relative strengths and limitations.

#### ***Outside-in matching***

The **Outside-in** matching approach is based on the logic that matching of content to the individual learner should be driven by what is seen as relevant and popular based on number of clicks, views and rating levels from other learners who bear some resemblance with the learner. The key features of Outside-in matching technique are the following:

- Matching is based on automated mapping and tagging of both content and learner behavior performed via algorithms or pattern recognition by use of AI/machine learning
- The efficiency of this approach relies on patterns that emerge from high volumes of content and a large number of active users clicking on, viewing and rating content
- The logic is based on limited information about the learning content and characteristics of the learner but predictions on how the learners will rate recommended content grow increasingly precise over time as the patterns of content, learners and ratings become more interlinked

To sum, in this approach matching of content to learners is based on what the learner and learner community tend to like indicated by clicks, views, likes and ratings of content.

This technique has some limitations which can be illustrated with an analogy: Cupcakes tend to be more popular than carrots – but are not necessarily better for you. To follow, recommendations based on clicks and likes of the learner community might not always support the behavioral changes as stated in the learning objectives and development plan of the individual learner. Recommendations need become more precise in order to effectively target individual needs and learning preferences.

In general, the dependency on larger volumes of learners with similar needs poses a challenge for the Outside-in algorithms in generating relevant



recommendations for smaller or diverse learner groups sharing niche interests.

Therefore, it is relevant to supplement this approach with another logic for matching content and learner needs. The Inside-out approach is outlined below.

#### *Inside-out matching*

The **Inside-out** approach is based on generating more detailed insights in the individual learner and is based on principles for optimizing learning impact rather than optimizing based on clicks and ratings. Key principles are:

- Content is selected and recommended based on detailed information about the learner's specific skill sets, knowledge levels and even personality type or preferred learning style (see more further below on learning styles)
- Learner information is derived from assessment and feedback reports, development plans etc. allowing highly personalized learning experiences
- Learning content must also as part of the curation process be tagged with meta-data holding detailed information that allow precise matching

As opposed to the volume-driven logic of the Outside-in approach, Inside-out is a qualitative approach that can make highly relevant recommendations even for small target learner audiences. The possible weakness of the Inside-out approach is its dependency of collecting more extensive insights about the individual and more effort put into estimating the impact of specific learning objects and offerings. In short, the inside-out matching approach make it possible to prioritize carrots over cupcakes in preparing the learner's diet – but it takes an extra effort to do so.

As both the Inside-out and Outside-in approach have their strengths and limitations we believe that they should be combined in order to create effective personalized learning experiences.

Therefore, we propose that the Inside-out approach should be applied for learning offerings targeting the core competencies needed in the different job-roles to ensure that learners are presented with content that precisely match their unique profile and needs. The Outside-in approach then can be utilized as a powerful supplement to personalized learning by adding features such as “your colleagues liked this content” and “since you liked content A you may as well like content B” to

create a more rich, interactive and inspiring learning environment.

In the following section we will add a layer to the personalized learning experience by outlining the key principles of adaptive learning formats.

#### ***Adaptive learning – deep matching of content***

As illustrated, the LXP can be compared with an intelligent librarian who selects exactly the book that is expected to bring the best reading experience to the individual reader. But an additional level of matching is introduced in the emerging discipline of Adaptive learning: Customizing each single book to the specific learner.

Adaptive learning adds efficiency to the learning process as this technology selects only the needed content elements – metaphorically speaking, the relevant chapters or pages of the matched book – to the learner. This is done by adapting to the learner's unique profile, previous knowledge and in some cases results from assessments where the learner also indicates his or her confidence level when answering the probing questions.

#### *Adaptive learning paths*

Most LXP's support adaptive learning facilities by providing opportunity for designing specific learning packages and learning pathways to the individual learners.

Now, this perspective is advanced by providers of a new line of learning technologies that can take a specific learning topic and content format and convert it from a linear format where all learners follow the same learning path into a flexible format that customizes the path to the individual learner.

At current state, this approach to creating adaptive learning formats is best suited for simple training designs where learning impact can be measured by questions with clear yes/no answers.

As impact measurement and pilot testing is crucial to making the right decisions in selecting and designing future learning solutions we want to make a brief note on this emerging field as LXPs have brought new opportunities for impact measurement of learning offerings and tracking of the progression in learners' behaviors and skill sets.

### ***A brief note on measuring learning impact and piloting new learning in LXP environments***

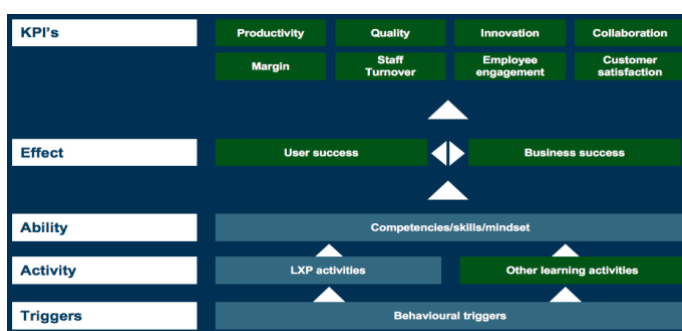
Impact measurement and data driven learning analytics can be taken to new levels when integrating all learning activities into a single digital platform that every learner interact with.

In the LXP environment the learners' behavior can be tracked in great detail across the diverse learning sources and content types from both internal providers and the wider ecosystem of learning.

This integration of learning architecture opens a new gateway to moving the learning profession from a paradigm of best practices and learning theories into a realm of designing learning interventions based on specific metrics and reliable data.

In order to move beyond the rather elusive data level of clicks, views and likes derived from the Outside-in perspective as outlined above, some consideration must be put into developing a robust data model and performance measurement system. The Inside-out perspective lends promising perspectives to both measuring impact of learning based on detailed insight into both the learners' actual learning behavior, competency levels, assessment data etc.

Regarding learning performance measurement, we will very briefly touch upon a framework that can guide future thinking around how measuring learning effect can contribute to the strategic KPI's in a company's (balanced) business scorecard. Below is an outline of a KPI scorecard illustrating how learning can drive performance measures:



Boxes marked light blue are examples of data that can be captured by LXPs: Highly detailed information about which learning triggers (recommendations based on matching technologies) that lead to specific learning activities and tracking of improvements in the learners' competencies, skill sets and behaviors.

If results for the elements marked in blue boxes are measured in a separate system it will not be possible to weigh in effects from other learning activities, or to relate changes in competencies and skills to measurable impact on KPI's. This challenge calls for an integrated and open analytics approach, where data from all boxes can be combined. Solving this challenge is critical for creating an effect-based learning ecosystem and securing critical information that can guide adjustments and investments.

### ***Citi case continued: Piloting new learning offerings in LXP***

Using the data capturing facilities of LXPs allow credible experimental testing of new learning offerings at a whole new level.

This approach is adopted by Citi where constant experimenting and live user-testing of prospect learning offerings in the LXP prior up-scaling is seen as key to success. Different program variants are piloted through the LXP and learning impact can be measured and compared across comparable learner audiences.

Hence, decisions on scaling pilots to larger audiences can be made based on reliable data on learning impact and behavioral changes of learners. Citi is continuously testing learning offerings with potential value contribution to the strategic priorities, and decommissioning content and delivery methods that no longer deliver the desired behavioral and business impact.

In a complex, diverse and fast changing business environment such as Citi's success depends on constant adaptation and a trial and error approach to working with new learning designs and methods.

This approach also reflects on Citi's choice of vendors. To quote Peter Fox, Global Head of Digital Learning and Talent Technology, at Citi: *"If a supplier is not eager to be part of a pilot it's probably not the supplier you are looking for"*.

We expect to see a proliferation of companies choosing to partner with carefully selected vendors from the ecosystem with business models based on agile development, co-creation, learner driven innovation and even fee models based on savings and delivered behavioral and business impact.

### ***Exhibit on adaptive learning: Matching both content and formats to meet individual learning styles***

As illustrated above the future of personalized and empowered learning lies in decomposing the elements

of learning into smaller and versatile “intelligent” building blocks that can be assembled in a multitude of ways that match the individual needs and preferences of the learner.

As the Inside-out approach rests on detailed information about both the learner and the learning content, insights on the learner’s learning style can improve learning effectiveness by mixing and matching both content elements *and* learning formats to the learner.

Based on knowledge of the learners’ personality profile or learning preferences we are currently testing how specific combinations of learning content and learning formats can be mixed and matched to create optimal learning experiences for the individual learner<sup>3</sup>.

To illustrate, we use the learning model originally developed by David Kolb (*Kolb, 1984*) and conceptualized into learning styles and assessment tools by Peter Honey and Alan Mumford (*Honey & Mumford, 1982*).

The four learning styles are:

<p><b>PRAGMATIST</b></p> <p>Learn by APPLYING TOOLS AND CONCEPTS they find simple and useful</p>	<p><b>ACTIVIST</b></p> <p>Learn by EXPERIMENTING and constantly testing new ideas</p>
<p><b>THEORIST</b></p> <p>Learn by UNDERSTANDING THE THEORY behind the actions</p>	<p><b>REFLECTOR</b></p> <p>Learn by REFLECTING on own experiences and getting inputs from others</p>

By analyzing each set of preferences and specific behaviors of the four distinct learning styles specific content and formats can be developed and mixed and matched to the learners to facilitate more effective learning.

Based on our work we have found that the following content types and learning formats likely match each of the four learning styles:

### **Pragmatist**

#### *Content types:*

- Tools for application
- (Quick) guides and check-lists
- Step-models and action plans

#### *Learning formats:*

- Bite-sized and Just-in-Time

- Application with immediate feedback
- Self-directed

### **Activist**

#### *Content types:*

- Inspirational videos
- Constant flow of inputs and ideas for testing
- User-generated content that inspires action

#### *Learning formats:*

- Dilemmas and scenarios
- Interactive games and simulations
- Experiential learning, including Virtual and Augmented Reality

### **Reflector**

#### *Content types:*

- (Self-)assessment and feedback tools
- Reflection and reviewing questions
- Cases and practice descriptions

#### *Learning formats:*

- Social learning, groups and communities
- Process-oriented
- Peer learning

### **Theorist**

#### *Content types:*

- Theories and models
- Empirical studies and research-based articles and books
- Analytical and diagnostic frameworks

#### *Learning formats:*

- Academic style
- Presentations from experts
- Self-study

We believe that this perspective on adaptive learning can provide new insight into how to develop learning content and formats that balance and match the preferences across the learner population.

From client work we have found that the current balance in the learning offerings often match the learning styles of Reflectors and Theorists better than Pragmatist and Activist learners. We speculate that this observation reflects the fact that current learning offerings still to a large extent reflects a traditional, academical learning paradigm. This imbalance constitutes a risk of forfeiting development potential among the learners who by means of their behavior often will contribute to the innovativeness and drive for results in the organization.

One application of this approach to matching could be that L&D should ensure that content types and learning formats in learning offerings cover and balance across

<sup>3</sup> We are currently testing different ways of predicting learning styles from learners’ personality profiles, self-assessment and feedback reports.

the learning styles. Ideally, the individual learner should be matched with the learning content types and formats that best reflects his or her dominant learning style.

In the following part of this paper we explore the significance of organizational culture as an enabler or barrier in building effective learning behavior and habits of the empowered learners.

### **PART 3: A HOLISTIC PERSPECTIVE – ADDING ORGANIZATIONAL CULTURE TO THE LEARNING EQUATION**

After having covered the learner, the learning content and learning formats including the learning technologies that enable empowered learning by matching the relevant content in the right learning format we zoom out and take a holistic view to consider some of the organizational and cultural factors that needs to be addressed to fully take advantage of the new approach.

Below we examine how an agile learning culture can be developed in order to support empowered learning.

First, we present some general key points on learning culture.

Then we leverage from research on individual learning agility in order to identify four key enablers and one derailer in building an agile learning culture.

Finally, we sum up our framework for a learner centric approach by presenting a formula that illustrates how the different elements contributes to the overall Effectiveness of empowered learning delivered by L&D.

#### ***Organizational culture can multiply (and denominate) the effect of empowered learning***

The function of culture in a learning context is to create an environment where desired behavior and productive learning habits can be built and sustained through relevant learning resources and supporting social interaction and exchange.

We hold that culture can both constitute a barrier to empowered learning and serve as a multiplier that can catalyze behavioral change at a broad organizational scale. If the key cultural aspects are addressed in the right way empowered learning can be supported by what we propose to call an agile learning culture.

Thereby a virtuous circle is created where individual learning behavior is supported by the organizational learning culture and vice versa.

#### ***Learning culture – general observations***

Josh Bersin is proposing a model that points to the critical role organizational culture plays in learning. To illustrate, Bersin uses the iceberg metaphor originating from the founding father of corporate culture, MIT Prof. Edgar Schein (Bersin, 2018).

Above the surface of the cultural iceberg we find the following artifacts (Schein's notion) that manifest a strong learning culture:

- Strong Talent Process
- Great L&D Measures & Effectiveness
- Excellent L&D Skills
- Strong CLO (Chief Learning Officer)
- Great Corporate University
- Excellent Training Technology

Beneath the surface (that we know comprise 90 % of the iceberg/culture) we find a set of pertinent questions that can be used to gauge the depth of the learning culture. The main question is: *Have we created an organization which truly has a culture to learn?* In order to substantiate our answer a subset of questions for further inquiry is posed by Bersin:

- Does Leadership reinforce the need to learn?
- Do people feel empowered to point out errors?
- Are experts rewarded and valued?
- Do we take time to reflect?
- Can we get time from experts and leaders?
- Do people move around and take risks?
- Do people share information openly?
- Do we listen to customers openly?

The list can serve as a practical framework for assessing the learning culture of any organization and provide a good starting point for identifying cultural enablers that can promote the learning actions and behaviors of empowered learning individuals.

For instance, if people in the organization in general perceive that they are empowered to point out errors and they hold it to be true that making mistakes is legitimate, and even recognized, this will enable a specific learning culture that includes experimenting and risk taking.

In order to further develop this perspective and outline a more structured and prescriptive framework for assessing the learning culture in organizations, we will draw on research on learning agility.



### ***Towards a model for agile learning culture***

Research from Columbia University's Learning Agility Initiative provides practical insight into how learning agility among *individuals* can be understood and developed. In this section we will expand the concept of learning agility to also encompass the *collective level of organizations*. We propose an *agile learning culture model* that builds on findings from the Learning Agility Initiative.

Learning Agility is defined as follows:

*"A mindset and corresponding collection of practices that allow people to continually develop, grow, and utilize new strategies that will equip them for the increasingly complex problems they face in their organizations" (Mitchinson & Morris, 2014).*

We believe that this definition could also apply when describing an agile learning culture as the focus on "mindset and corresponding collection of practices" resonates with established definitions of organizational culture.

The research from Columbia University has founded a framework and model that details and measures learning agility behavior based on five main facets<sup>4</sup>.

The facets that enable learning agility are: Innovating, Performing, Reflecting, Risking and lastly Defensiveness as a facet that derails learning agility. Each facet is further described in (Mitchinson & Morris, 2014). Below is our elaboration of five facets as we propose they could be defined with the purpose of describing an agile learning culture:

***Innovating:*** In an agile learning culture people have adopted the practice of questioning the status quo and challenging long-held assumptions with a goal to discover new and unique ways of doing things. In doing so, people grow their knowledge base of understanding and are able to generate new ideas by assessing issues from multiple angles.

***Performing:*** In agile learning cultures people are in general able to adapt quickly and overcome stress

brought on by ambiguity by persevering and demonstrating resilience. They have developed a mindset that allow them to pick up new skills by being able to remain present and engaged when faced with unfamiliar challenges.

***Reflecting:*** In an agile learning culture people have adopted the habit of seeking feedback, and they practice processing information and experiences in order to better understand their own assumptions and behavior. In doing so they build social practices that enable self-insight and promotes understanding others and the challenges they are trying to solve.

***Risking:*** In an agile learning culture people are inclined to take risks that lead to opportunity. Practices such as volunteering for jobs and roles where success is not guaranteed enable continual learning and builds confidence as people tend to stretch themselves outside their comfort zone.

***Defensiveness (derailer):*** Organizational cultures where people remain closed or defensive when challenged or given developmental feedback tend to be lower in learning agility. In contrast, people holding a mindset that reflects an agile learning culture seek feedback, process it, and adapt themselves based on their newfound understanding of themselves, situations and problems.

The research behind learning agility points out that individuals must possess each of the five facets in their repertoire in order to be considered high-learning agile. We believe that this insight also can be applied to our proposed model for an agile learning culture. In that sense an organizational culture (or part hereof, for instance a team) consistently must exhibit the five sets of practices and behaviors in order to be considered a high-agile learning culture.

### ***Implications***

We propose that the five facets modified from the research at Columbia University can serve as a framework for assessing the current stage of learning agility in the culture of an organization<sup>5</sup>, or part thereof, for instance a division, department or team.

<sup>4</sup> More work in this field has been done by Hoff & Burke as they elaborated on the earlier work by DeRue & Frey and have identified a total of nine dimensions involved in learning agility by adding the following to the earlier two dimensions of Speed and Flexibility: Experimenting, Performance risk taking, Interpersonal risk taking, Collaborating, Information gathering, Feedback seeking and Reflecting (Hoff & Burke, 2017 Hogan Press. Though, the nine dimensions occur to greatly overlap with and elaborate on the five facets identified by Mitchinson & Morris.

<sup>5</sup> According to the research paper analyzing demographic variables in the data material no significant differences in learning agility scores were found across gender, age, or organizational levels<sup>5</sup>. This result further indicates to us that the five facets of learning agility could be used as a framework to describe not only individual behavior but also characteristics of an organizational culture.

We are currently testing an assessment tool that leverage from this research on learning agility and expect to introduce an instrument that measures the agility level of a team's or organization's agility learning culture.

By measuring learning culture and specifically agile learning culture we can add a multiplying factor to the learner centered framework presented above in Part 2.

Now it is time to combine and take an overall view at the key elements of learning effectiveness addressed separately in Part 2 and 3 in this paper.

#### **PART 4: FITTING THE PIECES TOGETHER – FORMULA FOR LEARNING EFFECTIVENESS AND L&D'S OWN LEARNING AGENDA**

Below we summarize our findings in a formula to illustrate our ideas on improving the Learning effectiveness of empowered learning environments.

Finally, we share our views on which key areas L&D organizations should focus on in order to take the learning agenda for empowered learning forward.

Depending on the current stage of the L&D practice the key areas might present a need to acquire or build new skill sets in order to be equipped to deliver on the new learning agenda.

##### ***Formula for Learning effectiveness***

Based on what we covered in this paper we propose that there are three key components to Learning effectiveness in empowered environments:

1. **Content:** Relevant and timely learning content and formats that supports a mindset of learning
2. **Engagement:** Engaging learners through intelligent matching technology
3. **Culture:** Agility of the organizational learning culture

The first component addresses the need to develop learning content and formats that match the needs and preferences of the learners.

The second component addresses the need to bring the learning content to the learner in proactive, relevant and engaging ways promoting a learning mindset and behaviors that effectively build new skill sets.

The third component “Agility of learning Culture” addresses the general perceptions, practices and behavioral patterns that at an aggregate level sets the context for empowered learning in an organization. This component can either inhibit or promote the effect of the two other components in the formula and should be addressed as an integral part of building an effective learning architecture.

As we see the three components forming a holistic system, we choose to present them in a simple and illustrative formula outlining Learning effectiveness from the perspective of learner centric, empowered learning:

$$\text{Learning Effectiveness} = \text{Content} \times \text{Engagement} \times \text{Culture}$$

The formula states that Learning effectiveness is the product of Content, Engagement and Culture. Multiplying the factors as opposed to adding them indicates that the level performance in any of the three areas will impact the overall Learning effectiveness.

This integrated, holistic approach to assessing Learning effectiveness can guide L&D organizations in deciding where to focus the effort in order to maximize the Learning effectiveness of the learning offerings and the entire organization.

Assessment of the components of Learning effectiveness can provide valuable input into what can be improved and which types of specific initiatives that promote empowered learning.

Our Learning Effectiveness Assessment Instrument can point to targeted actions aimed at introducing or enhancing specific learning practices targeting the specific components of Learning effectiveness in an empowered learning environment.

##### ***L&Ds own learning agenda: Towards empowered learning***

In order to take advantage of the revolution in learning where empowered learning will take the place of learning management, a shift from investing in learning and development resources from a cost and efficiency to a value creation perspective is needed.

This shift could be facilitated by L&D revisiting its current value proposition in order to proclaim a new ambition that supports the learner centric perspective as presented in this paper.

In order to develop a learner centric approach L&D should focus on the key components that enable empowered learning that we presented in this paper.

Specifically, the following actions can provide a starting point for the learning journey of L&D organizations destined for delivering empowered learning:

*Supporting the mindset of empowered learners:*

1. L&D should assess the current practices and adopt new practices that support a growth mindset and strengths-based development methods in order to create positive attitudes and behaviors towards learning
2. L&D should take measures to change assumptions about learning as an activity separate from “real work” in order to promote learning “in the flow of work”

*Upgrading learning content:*

3. L&D should take advantage of the vast sources of online learning content by including external learning resources into learning offerings provided to learners
4. Curation of content will be a key discipline for future L&D organizations that needs to be mastered in order to ensure quality, relevance and impact of learning offering for empowered learners who will need to make informed choices
5. Specifically, systems for rating and tagging learning content with meta-data must be developed and implemented to ensure the right quality and matching of content

*Upgrading learning formats:*

6. Flexible learning formats that reflect the use situation and need of the learners should be build based on micro-learning elements that can be consumed separately or combined into learning paths
7. Learner-generated content, and “learners as content” should be promoted and supported in order to build a learning culture and to provide externalized knowledge and contextualized learning

*Matching offerings to learners:*

8. Learning content and learning formats should be combined into personalized and adaptive learning offerings by using the emerging LXP based learning technologies that includes insights into the personality profile/learning styles, assessments and actual learning behavior of learners
9. Learning offerings should be presented to learners based on both the Outside-in and Inside-out matching approach to create both precise recommendations and inspiring learning experiences
10. Data analytics from LXPs should be used to measure the behavioral and business impact of learning interventions and also to test the impact of new learning formats before scaling to larger audiences

*Developing an agile learning culture:*

11. The organization’s learning culture should be carefully assessed and relevant measures taken to promote the five facets of an agile learning culture that will multiply the Learning effectiveness in empowered learning environments

***Final remarks***

This white paper reflects our current thinking and position on learning and L&D practice and will be updated as new critical aspects are discovered and put into perspective.

Triggerz plans to regularly publish popular presentations on overall points in various formats as well as additional themed white papers that further explore the insights covered here.

We are eager to learn from organizations experimenting with empowered learning and hope to have inspired reflection, discussion and fresh thinking around learning in organizations.

Any feedback, ideas or inputs are most welcome and can be forwarded to Frank Dybdal Lilleøre at: [frank@triggerz.com](mailto:frank@triggerz.com).

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### ***Acknowledgements***

Triggerz wishes to thank Peter Fox, Global Head of Digital Learning and Talent Technology at Citi for his contributions to this white paper.

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