EduTech

The digital new workforce

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EXECUTIVE SUMMARY

Enable employees to keep up with digital transformation and let them learn new skills is our mission.

Corporate trainings are often taught by conventional methods like single trainings, coaching or videos, which are not sufficient for employees to fully adopt and use those teachings to their full potentials. A sustainable knowledge base, which guides employees to acquire new skills via digital learning nuggets (AI, AR, gamification, audio-visual tools etc.) and revised test modules to control the right usage and success rates

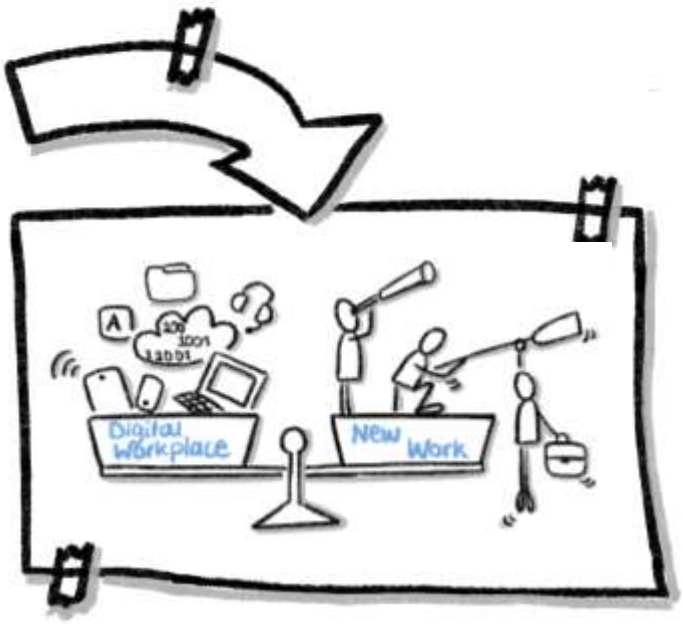
Employees can learn new skills faster and use them in ways, which fit their individual needs better. The management has more control and possibilities to adjust the rollout and enablement of new tools.

CHALLENGES

Digital Workplace as driving force for the New Work approach.

As the world is changing, we make the assumption that people start to get more familiar and efficient with remote working and digital working technologies. Companies try to encourage and sometimes force their employees to use new digital tools to improve their work processes. However, these tools and services are often shut down before people start to use them properly.

Frithjof Bergmann´s New Work approach aims to enable employees and managers to reveal their full potential and to create an atmosphere where everyone is respected and valued. As we are surrounded by hundreds of software and hardware products, we have the ability in this certain period to let the digitization work for us. We can automate or improve our solutions for exhaustive tasks and invest more time on core activities.



The three-generation dilemma

Today, many workplaces are composed of at least 5 generations. The gap between these generations is starting to affect and change how people work, as younger generations increasingly rely on technology and methodologies that incorporate technology.

Nowadays, the digitization has a huge impact on society. It is transforming and disrupting nearly every business in the world. Especially when it comes to different media perceptions. In the first phase of world wide web, “Boomers” used the internet as a source for information and developed business applications to enhance communication e.g. via E-Mail. Through the rise of social media in the beginning of the 2000’s, we started to realize the way people consume content is changing.

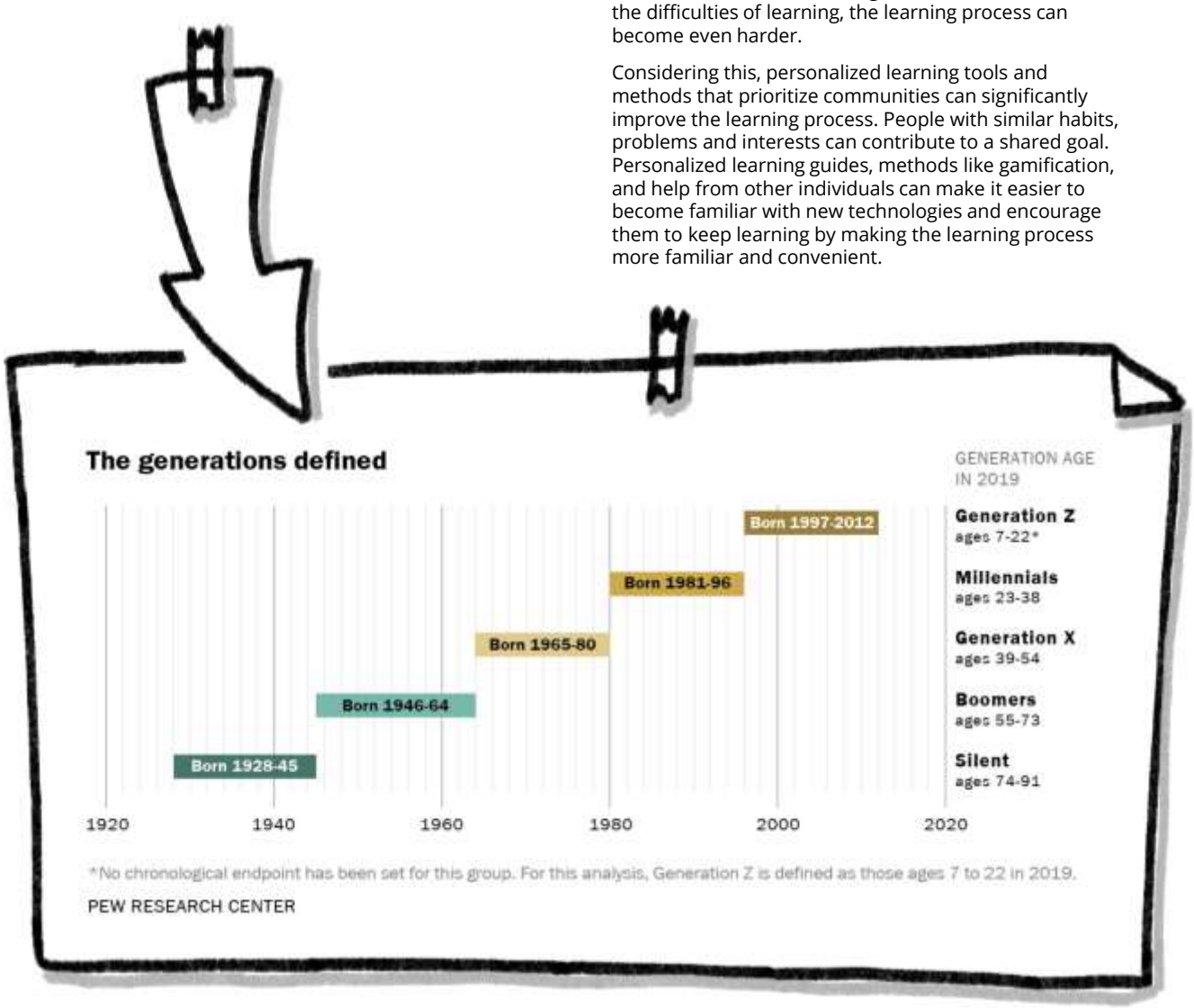
The interval of the media inventions is decreasing, as the technological convergence simplifies the production. However, newspapers and radio never faded away. They still have listeners and readers in all age groups. The variety of different media increased, yet the preference for the best consumable medium is still a very individual question.

Technical Pioneers (Adoption of new technologies)

Rapid changes in technology and their impacts on business processes force people to continuously adapt to these changes and to never stop learning. Individuals might fear that they are going to lose their added value to their organizations, if they cannot keep up.

Furthermore, adopting to constantly changing technology or the learning process itself can already be tough and frustrating for some people, as they must leave their comfort zones and push themselves to their limits. When the fear of losing value is combined with the difficulties of learning, the learning process can become even harder.

Considering this, personalized learning tools and methods that prioritize communities can significantly improve the learning process. People with similar habits, problems and interests can contribute to a shared goal. Personalized learning guides, methods like gamification, and help from other individuals can make it easier to become familiar with new technologies and encourage them to keep learning by making the learning process more familiar and convenient.



FACING THE CHALLENGE (USER-CENTRIC)

Diverse toolchain (audio, visual & augmented)

We anticipate EduTech, a digital platform that consists of various technologies as an alternative path to conventional ways of learning.

The digital platform can provide many types of learning materials in one place, while offering a remote and convenient way to access them. The types of materials that can be hosted include, but are not limited to audio, video, text, web pages, smart wiki, Q&A forums, mobile and web applications.

The diversity of materials is not only useful to generate personalized learning guides, but also for time management (i.e. listen to podcasts on commute) and to learn different aspects of the same topic from different materials (i.e. read about software's features first and then watch a "how to" video).

With the proliferation of web devices, the delivery of learning material on these devices has become essential. For this reason, a digital learning platform is necessary to make the learning content accessible. However, content creators can also use the sensors and cameras on some of these devices to develop innovative learning material.

Augmented Reality is one of the nicer examples in this context. It is one of the hottest topics in new learning technologies.

AR is being used to provide an interactive learning experience and makes learners focus more on practice instead of theory, while the theory can be learned from other media.

Modelling real-life objects is one of the most used AR applications. AR makes it possible to visually explore things that would normally be difficult or dangerous to see, rotate, and zoom such as the internal structure of a car, a virus, or an explosion in a facility.

Chocolate wrapped broccoli

You can showcase and do roadshows with new applications and technologies, but this does not guarantee its adoption.

People will use a learning experience platform if it serves their needs and aligns with their objectives. The platform should improve the learning process. A quiz in form of a multiple choice test is not gamification and an augmented reality application without sustainable usage is just a chocolate wrapped broccoli.

That's why the delta of learner, learning provider and learning investor can give better answers on what is really needed to measure and ensure the succses of a learning experience.

A.I. (Algorithms, Cognitive Services, Learner Guidance,..)

The digital platform collects valuable data that can be utilized through analytics and AI algorithms to create an ideal learning environment for each learner. Based on the learners prior choices of courses and materials, preferences, and questions, the algorithms create a model of each student. This allows the system to give content suggestions tailored to the learners personal learning speed and preferences.

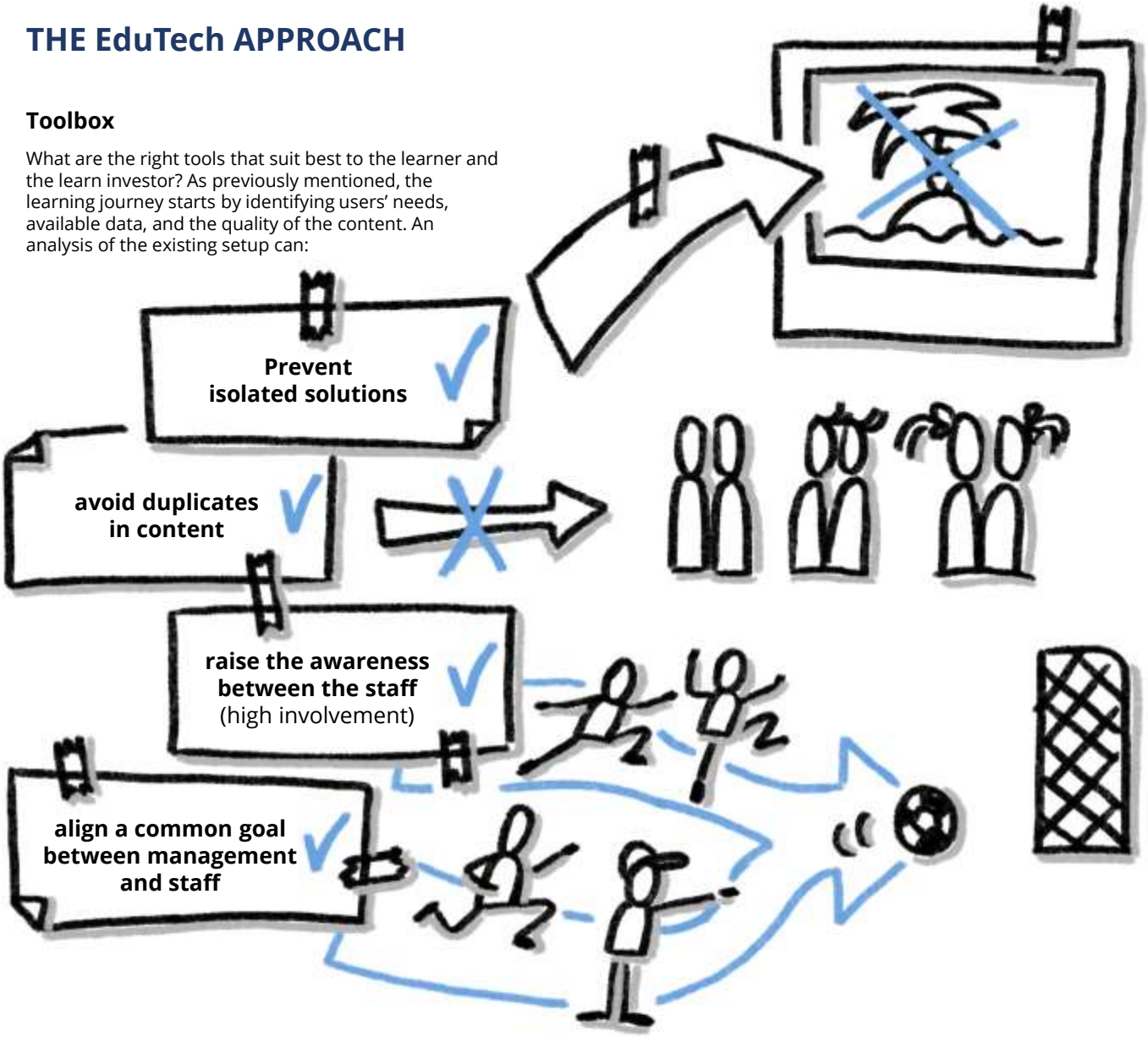
The platform employs various techniques like natural language processing (NLP) and data modelling to transform raw data into information. These tools enable the platform to understand the real-life concepts of organizations and how they are related to learning materials. This, in return, makes it possible to analyze questions and answers, aggregate similar users and content, provide meaningful search results, and curate the related content.

Finally, integrated cognitive services such as optical character recognition (OCR), speech-to-text etc. can be helpful to create new learning materials or to transform existing ones. For example, OCR tools can convert a scanned file into a text document, while a podcast can be converted to a text document using similar services or vice versa.

THE EduTech APPROACH

Toolbox

What are the right tools that suit best to the learner and the learn investor? As previously mentioned, the learning journey starts by identifying users' needs, available data, and the quality of the content. An analysis of the existing setup can:



In order to better understand which tools can be employed, we present some examples from our previous EduTech projects below.

Dashboards

Dashboards are used to display the progress of learners with respect to the key performance indicators (KPIs) defined by the product owner. There are two different dashboards in Edutech; one for the learner and one for the learn investor.

The learner can use her dashboard to control and track her learning progress, see how other peers learn and other information such as what is trending in the company.

The dashboard of the learn investors can show, which tools and learners are the most and least successful to get the attention of the supervisors. Moreover, learn investors can get information about how peer groups evolve and deficits/strengths of departments' target groups.

Informal Approaches / Gamification / Game-based Learning

Learning has never been considered fun and maybe it will never be fun, but the way we learn is changing.

Today, we are learning from more informal and on-demand sources such as mobile applications and video stream services. We use them to learn about a wide range of things like a new language or how to play the piano.

However, it is still very important to keep a platform attractive like “freemium games” do. Permanent rewards and social interaction between the user or game-based learning via interactive web-based training can be used to reduce the complexity of learning.

Smart Wiki

Wiki's are widespread, but a Smart Wiki can be considered as a visible data lake. Its content is tailored to the explicit learning objectives, but it can also be discovered by the users.

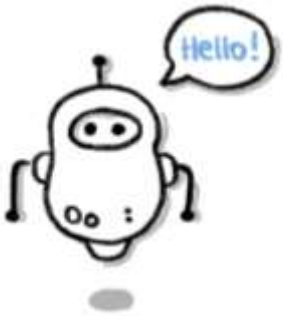
Learning content does no longer have to be text-heavy. Other media such as podcasts or videos can easily be included.

A Smart Wiki learns from the behaviour of the users. Is the content good enough to support the user in the upcoming hurdles? Direct feedback from the learner, knowledge mediator and learning investor dynamically shape the right media and content mix.

Data Aggregation and Integration

Companies don’t need to create its own content, when there are so many high quality resources outside the corporate borders. The digital platform enables corporates to embed external sources like Youtube in to the corporate learning structure.

Furthermore, in order to avoid duplicate content creation from different sources, the data should be categorized and aggregated using AI algorithms.



ChatBot

Known use cases of chatbots are mostly from the service area such as an assistant for handling returns etc. Within EduTech platforms, however, they can act as content aggregators and guide through the processes. They can also make suggestions and remind people their self-defined goals.

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