

The Changing Face of Human Resources Development with Technology Dynamics

* - Kirti Wadhawan

** - Dimple Wadhawan

* and ** are Asst. Professor at Dr. Virendra Swarup Institute of Computer Studies, Kanpur, Uttar Pradesh and Project Coordinator at Superhouse Group, Kanpur, Uttar Pradesh (India) respectively.

Abstract -

We all are living under the umbrella of technology driven lifestyle. No matter whatsoever walk of life you belonged to, the boons of technology and its dynamics are thriving its potential to the best in that respective area of interest. Interestingly technological innovations are dynamic by nature, therefore one can easily leverage the frequent upgradations and modifications into the existing version in use, making our life more comfortable and full of ease. Technology is a big aid for modern man to access everything in just few clicks without putting his hard efforts in real terms. Since technology is never stagnant, we humans are always in the state of bliss for getting better things every time.

In the milieu, where technology had thrilled almost every aspect of human life. We can easily relate its presence in our professional lifestyle as well. When we said; Human Resources Development in particular, we not only mean training and development of manpower or the human resource, rather it means Electronic Human Resource Development or how technology dynamics are actually changing the entire concept of doing HRD.

In this research paper, we will be focusing upon how the rapid changing technology is acting as a corner stone for e-HRD, vis-a-vis future workforce. How technology dynamics is making the job of modern HR managers much easy with respect to training and development needs of their respective workforce.

Although there are variety of aspects which are covered under HRD as a subject. It is impossible to cover all of them in single research paper, therefore the entire focus of this research paper is on how technology dynamics are changing the face of HRD in general and it's Training and Development part in particular. Our entire focus is on how technology is helpful for modern manager to conveniently conduct the training of their human resource working under them, along with their holistic development. The research paper is based upon literature review collected from like-minded research papers and also from primary data, secondary sources, reports and magazines. We have taken the **sample size of 65 respondent** for conducting this study. The paper further suggest suitable measures that can be adopted for more improvement with respect to HRD.

Keywords –

Human Resources Development, HRM, Personnel Management, Technology, HR, Workforce, Manpower, technology dynamics, Digital Training and Development.

Introduction –

Human Resource Development, a concept which is purely a subset of larger concept called Human Resource Management. Human Resource Development (HRD) refers to the organization's plan to help employees develop their abilities, skills, and knowledge. In return, this process enhances the organization's efficiency. HRD is a bundle of activities that leads to holistic development of an employee via Training and development, career planning, Career development, career growth, talent management and Succession planning etc. Today almost every organisation had the respective HR department of their own, who is responsible for the handling all the human resource related needs of the company. Now that Human Resource has turned as an Asset for any company, it become highly crucial for the companies today, to ensure their development and regular upgradation. Therefore HRD as a separate cell is created which is completely dedicated for training and developmental needs of modern work force. The more trained, experienced and groomed is your human resources, the more chances of profitability and growth is there for your organisation.

The HRD activities add another set of responsibility upon the HR manager, to ensure Training and Development of their employees on a periodic basis. Thanks to the emerging technology which is making this job of the HR manager easier. The usage of emerging technological innovations for training and development of human resource, not only save time and resources of the HR manager, but also help employees to learn new facts easily and conveniently, without any difficulty. As we all are living in the age of Industry 4.0, it is important to optimally utilize our work force, by equipping them with adequate training about industry and technology dynamics, so that they can contribute the best of their worth for the success of their organisation. In the milieu, of making our human resource efficient, there lies enhanced utilization of technology dynamics for doing Human Resource Development.

The work place especially post COVID-19 Pandemic had taken digital space as well. Therefore the our common logic for the workplace as a brick and mortar establishment has expanded to online office hours as well, which we generally decode as WFH (Work from Home i.e. working from home over the gadgets or devices with the usage of internet without physically moving to office) and WFO (Work from Office i.e. Moving to office location to do work on gadgets or devices with the usage of internet and other work place widgets).

Now that we had clearly understood the reality of modern working system for the skilled and semi-skilled human resource in general, we need to focus on their HRD Mechanism. So far, the traditional concept has bifurcated the methods of Training and Development into On the Job methods and Off the Job Methods. Almost every individual who aspires to become a potential human resource for any particular industry must gone through with these traditional methods. Interestingly, the technology dynamics has bring about

revolutionary utility in both these methods. No matter which method you are using to inculcate training about the respective job, the boons of technology is helping most of us to become a highly skilled and efficient work force for meeting future industry challenges.

Today, we observe that the companies are providing training sessions to their employees on video-conferencing applications like Zoom/Google-Meet or Webex. Not only this, they used to take online assessment of their employees performances as well. Moreover companies had dedicated assessment management software, which helps the HR department of any company to managing human resource processes and functions. In fact today AI is making smarter

Recruitment and HR analytics helps HR manager makes easy decisions.

In the nutshell, we can say that technology in the form of computers, smart gadgets, internet, software, e-content, live streaming, video recording, online assessment, digital report cards, tutorials, 3D printing, presentations, audio-visual aids, smart applications, robotics, Artificial Intelligence, Internet of Things, Quantum computing, cloud computing, networking and all other emerging technologies are thriving the realities of Human Resource Development.

Review of Literature

So far, there are multiple research paper that had been published globally, which tends to analyses and understand the impact of technology dynamics in Human Resource Development process. The boons of technological innovation today had reached to each and every nook and corner of our modern lifestyle, therefore its possible impacts are also visible in HRD as well. The following research paper attached below summaries that how technology is making shifts in the cores of HRD activities. Let's us go through with them one by one.

Elisabeth E. Bennett (2014) stated that, HRD must adopt new skills and develop explanatory models for growing organizational learning capacity in virtual work. In the nutshell, this research paper entire focus on Virtual Human Resource Development of the employees. Abbreviated as VHRD, it will pave the way of new conceptualizations of HRD's role with technology development.

Dianna L. Stone, Diana L. Deadrick (2015) stated that, among the major sources of pressure for changes in the field of Human Resource Management, like shifts in the economy, globalization, domestic diversity, and **technology** have created new demands for organizations, and propelled the field in some completely new directions. However, we believe that these challenges also create numerous opportunities for HR and organizations as a whole. Thus it is clear that Technology is among the major reason which create pressure for changes for HRM, therefore its potential impact will be clearly visible in training and development of human resource.

Angela D. Benson, Scott D. Johnson, and K. Peter Kuchinke (2002) stated that the advancement of technology in the global workplace is having a profound impact on the roles of human resource development (HRD) professionals. The use of the internet and related Web-based tools that define new workplace called digital workplace. As a result, the Internet and related Web-based technology tools are important to HRD professionals who seek to fulfill their roles as partners in improving workplace performance. Also it stated that HRD professionals have a tremendous opportunity to use IT tools to enhance learning, job performance and organisational decision making.

Research Methodology

Study in this research is **Exploratory** in nature and **Convenience sampling technique** is used. Primary database collected from respondents through **Questionnaire** and secondary data from Journals. All questionnaire collected were digitized and analyzed using MS- EXCEL. Study was conducted among working professions who are doing some kind of job or working in some company under different departments having distinct designations in Kanpur. The data is collected from 65 respondents via **Google forms**.

Research Objectives

- To understand whether technology is helpful for human resource for enhancing their ability towards their career excellence.
- To determine the Impact of Technology dynamics on training and development needs of Human Resource.
- To identify the reasons for adopting technology for doing HRD.
- To study how modern HR managers are coping up with technology dynamics along with their workforce.
- To study the improvement in human resources through technology based training & development.

Limitations of Study

- Sometimes respondent do not give correct information, therefore results can't be generalized. Hence sampling errors may exists.
- The sample size is just 65. Thus this study may be exactly meet the real picture with respect to HRD.
- The sample population of this research study is restricted to Kanpur only.
- The entire focus of the study is only on the Training and Development part of HRD.
- The Time limitation is another barrier for the study of this research paper.
- The findings of this research paper is centric towards working professionals only, and had no inter-connection with other section of users.
- The scope of this research paper is limited for working life purposes only.
- At last, we all must not forget that technology is still dynamic, therefore modern HRs must kept themselves ready for more innovation under HRD in the coming days.
- The critical findings of this research paper will majorly for the HR Managers, thus other department will not be benefitted from it.

Data Analysis & Findings

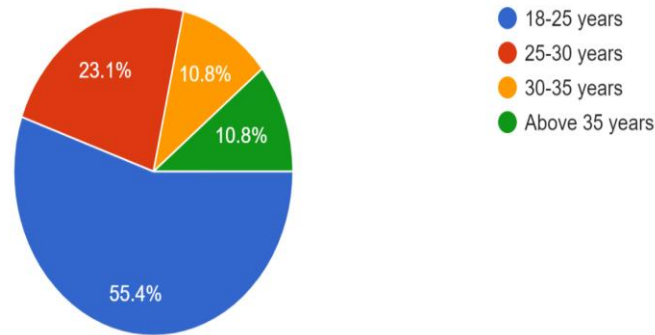


Fig 1 – Define your age-bracket

As per the research done in Fig 1, Out of the total respondents participated in this research data collection, there are about 55.4% of the respondents who belongs to the age group of 18-25 years. 23.1%, 10.8% and another 10.8% belongs to the age-bracket of 25-30 years, 30-35 years and above 35 years respectively. This clearly indicates that majority of respondent taken for doing this research (55.4%), belongs to 18 to 25 years and are younger age professionals in nature.

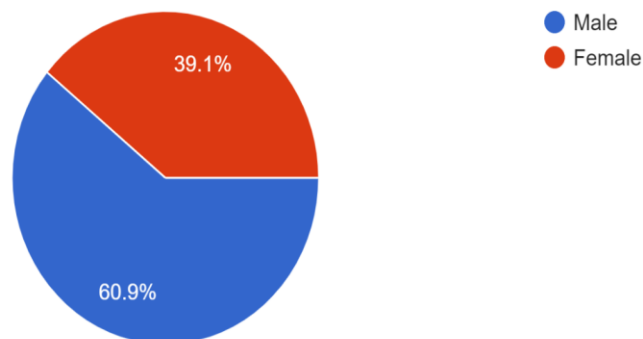


Fig 2 – Define your gender

According to chart given in Fig 2, this research is conducted purely on working professionals who are being employed somewhere. Out of our total sample size of 65, there are about 60.9% Male respondents and 39.1% are Female respondents, who have participated in this research paper data collection.

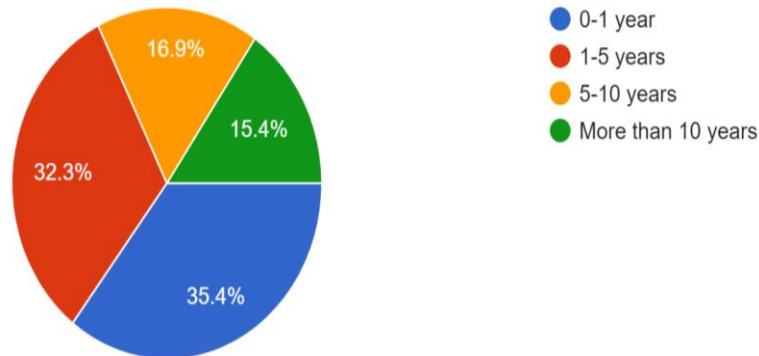


Fig 3 – Working Experience of the Human Resource

According to research data collected in Fig 3, 35.4% of our respondent have working experience of 0-1 year. 32.3 % hold the working experience between 1 to 5 years. However 16.9% and 15.4% of our respondents have the working experience between 5-10 years and more than 10 years respectively. This data is clearly indicative of the fact that all the sample units, used in this research paper hold some working experience and hence they are the working human resource in some organisation, and HRD is also a part of their professional lifestyle. Therefore all the respondent can better answer how technology dynamics is changing the face of Human Resource Development.

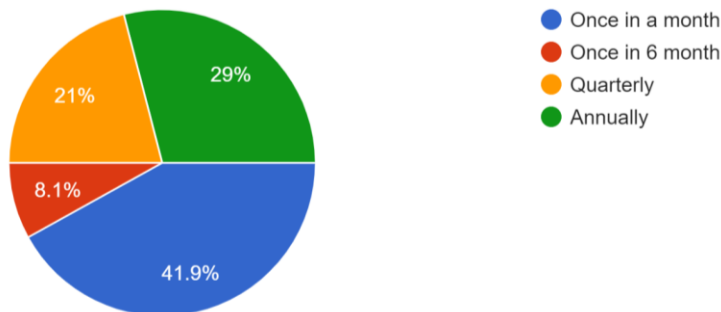


Fig 4 – How frequently Training and Development conducted in their office

As per the responses collected vis-à-vis Fig 4, we can conclude that 41.9% respondents said that there is Training and Development exercise conducted in their organisation once in every month. 8.1% of the working professionals got Training & Development once in a 6 month, working place of 21% respondents conduct Training and Development exercise on quarterly basis. Rest 29% of the working professionals got Training & Development annually. This clearly indicate that majority section of working professional got some kind of Training & Development on monthly basis. On a larger picture as well, we can concluded that Training & Development, which is an important aspect of Human Resource Development, is a routine exercise for all working professionals.

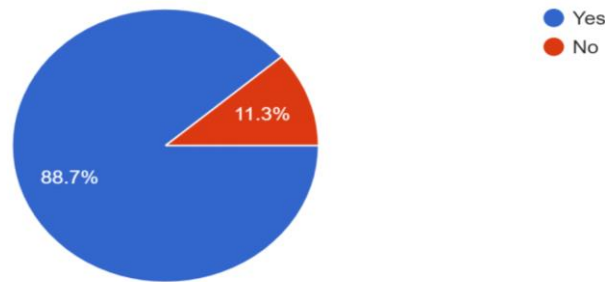


Fig 5 – Use of Technology for Training & Development

According to data collected in Fig-5, 88.7% of the working professionals said that their company uses technological aid for doing training & development of their human resource. Whereas companies of 11.3% working professional respondents did not use technology for Training & Development.

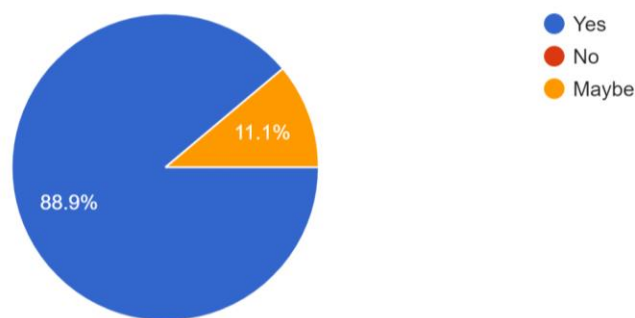


Fig 6– Technological Innovation improve Training & Development Experience

As per Fig 6, when asked about, whether technological innovation improve your training & development experience, 88.9% of the working professionals replied yes. Interestingly there is absolutely no one who denied with the fact that technology improve training & development experience. 11.1% of the working professionals answered maybe for this particular question. In the nutshell, almost everyone agreed with improved experience in training & development due to Technology.

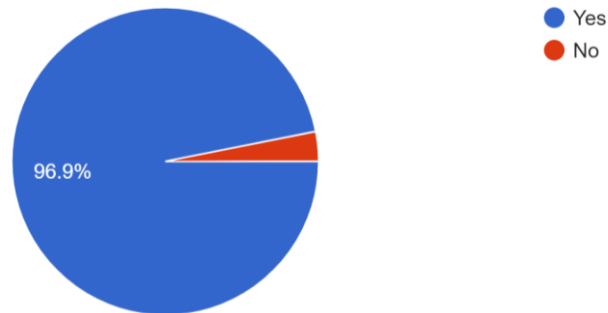
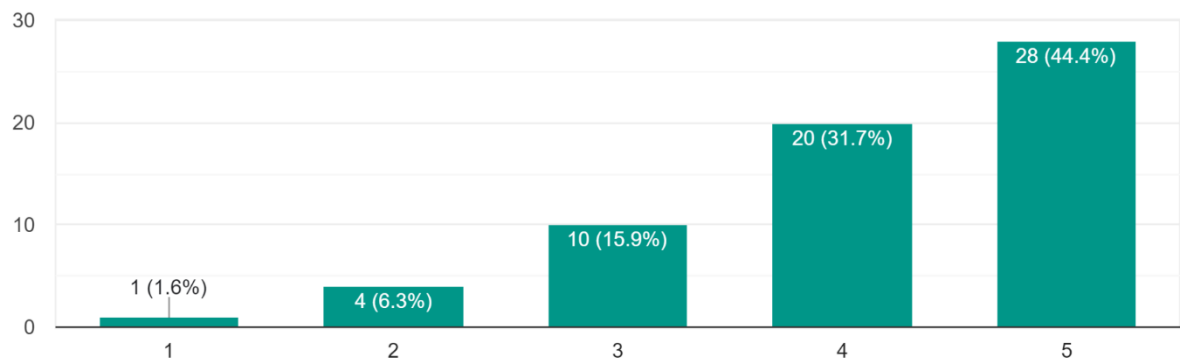


Fig 7– Technology makes training easier

As per the research data collected vis-à-vis Fig 7, 96.9% of the working professionals believe that technology is useful in making training and development easier for the human resource. However, only 3.1% disagree with the fact that technology makes training and development easier. In the nutshell, for majority of working professionals, technological-aid in any form makes training easier.

**Fig 8 –
Future
of
Human**



Resource will be Technology-driven

According to the data mentioned in the Fig 8, 44.4% & 31.7% of the working professionals Strongly Agree and Agree with the fact that future of Human Resource will be technology driven. Which means that with time more and more companies will be tech dependent for doing their Human Resource Development. 15.9% took neutral stand to this statement. Whereas 6.3% and 1.6% of the working professionals Disagree and Strongly Disagree with the fact that future of Human Resource will be technology driven. Thus in the nutshell, we can say that future workplace will be relying more & more on Technological assistance for doing HRD.

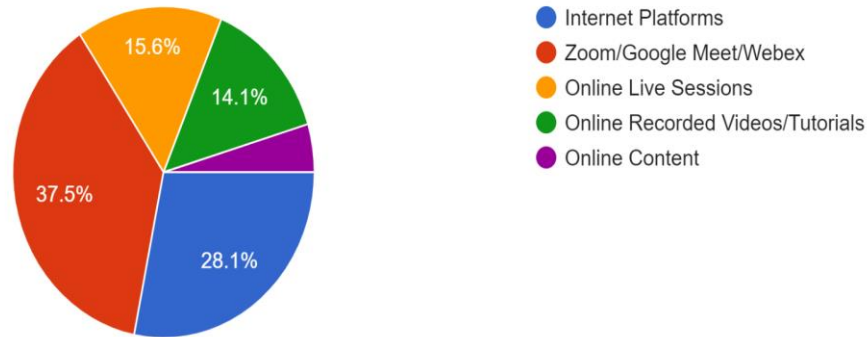


Fig 9 – Technology used for Training & Development at Office

As per the data collected in the figure 9, there are different technological aid, that are used by the organization's today for conducting Training and Development session. 37.5% of the working professionals are trained with the help of Zoom/Google Meet or Webex type technological options. 28.1% of the working professionals are trained & developed by using Internet platforms. Rest 15.6 %, 14.1% and 4.7% of the working professionals are trained and developed by using, technological innovations like Online Live Sessions, Online Recorded Videos/Tutorials and Online Content respectively. In the nutshell, we can conclude that majority of working professions are trained by the using different tools of technology.

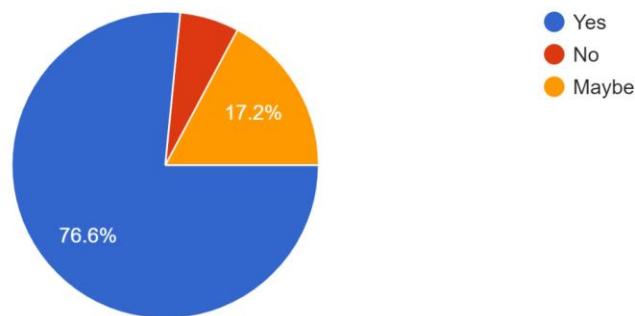


Fig- 10 Happiness with the arrival of technology in workplace

As per the research data collected vis-à-vis Fig 10, 76.6% of the working professional are happy with the arrival of technology in their workplace. Whereas 6.2% of the respondents are unhappy with the arrival of technology in their workplace. However 17.2% answered Maybe, which means that that are indifferent with the arrival of technology, neither happy nor unhappy with use of technology for conducting Training and Development exercises at the workplace.

Conclusion

1. 60.9% of the respondents used to conduct this study are male working professionals. Rest 39.1% are female working professionals.
2. 55.4% of the working professionals used in this research paper are in the age group of 18-25 years. Another 23.1% belongs to age-bracket of 25-30 years. Rest 10.8% and 10.8% belongs to 30-35 and above 35 years of age-bracket.
3. 35.4% of the human resource, have working experience of 0-1 year. 32.3 % hold the working experience between 1 to 5 years. However 16.9% and 15.4% of our respondents have the working experience between 5-10 years and more than 10 years respectively.
4. As per the study, 41.9% of the human resource participated in monthly Training and Development sessions. Whereas 8.1% got training once in 6 month, 21% got quarterly training. Rest 29% got annual training.
5. 88.7% of the company uses technological aid for doing training & development of their human resource.
6. 88.9% of the human resources believe that technological innovation improve their training & development experience.
7. 96.9% of the human resource believe that technology is useful in making training and development easier.
8. As per our research, 44.4% & 31.7% of the working professionals Strongly Agree and Agree with the fact that future of Human Resource will be technology driven.
9. As per our research, 37.5% of the working professionals are trained with the help of Zoom/Google Meet or Webex type technological options. 28.1% of the working professionals are trained & developed by using Internet platforms. Rest 15.6 %, 14.1% and 4.7% of the working professionals are trained and developed by using, technological innovations like Online Live Sessions, Online Recorded Videos/Tutorials and Online Content respectively.
10. As per our research, 76.6% of the Human Resource are happy with the arrival of technology in their workplace.
11. Technology is bringing gigantic shift in the way modern human resources are trained and guided about work.
12. Especially after COVID-19 pandemic, when Work from Home concept came into the picture, utility of technology for Human Resource Development in general and Training & Development in particular has increased to a much higher levels.
13. The future of HRD will be electronic. And this will happened probably very soon.
14. Modern HR managers being Tech-Savvy, will appreciate & implement technology for doing HRD.
15. Although, technology is improving the experiences for improved T&D of human resource, but still they can replace physical system of training & development.
16. Technology can't give personal touch what physical training does.
17. The larger picture of this entire study may be different, owing to the fact that our respondents belongs to Kanpur only.

References

1. <https://www.workhuman.com/blog/human-resource-development-hrd/>
2. <https://timesofindia.indiatimes.com/readersblog/gcblogs/role-of-technology-in-human-resource-development-51391/>
3. <https://www.peoplehum.com/blog/5-ways-hr-technology>
4. <https://journals.sagepub.com/doi/abs/10.1177/1523422314532091?journalCode=adha>
5. **Elisabeth E. Bennett (2014)**, “Introducing New Perspectives on Virtual Human Resource Development” Sage Journals, Volume 16, Issue 3, <https://journals.sagepub.com/doi/10.1177/1523422314532091>
6. **Dianna L. Stone, Diana L. Deadrick (2015)**, “Challenges and opportunities affecting the future of human resource management”, Human Resource Management Review, Volume 25, Issue 2, June 2015, Page 139-145. <https://doi.org/10.1016/j.hrmr.2015.01.003>
7. **Angela D. Benson, Scott D. Johnson, and K. Peter Kuchinke (2002)**, Advances in Developing Human Resources Vol.4, No. 4 November 2002 392-404, Copyright 2002 **Sage Publications** <https://doi.org/10.1177/152342202237518>

Primary Data Collection – **QUESTIONNAIRE**

Link of the same - <https://forms.gle/D7YTod127f9diuqA7>

About the Authors

Author -1 Kirti Wadhawan



My name is Kirti Wadhawan and I am an Assistant Professor at Dr. Virendra Swarup Institute of Computer Studies, Management Department, Kanpur (U.P). I have completed MBA with dual specialization in Finance and Human Resource. I am a Vice-Chancellor Gold Medalist from CSJMU, Kanpur for Bachelor's in Business Administration. More than 140 articles of mine has been published in across 9 different national daily newspapers and magazines.

E-Mail- kirtidimple3007@gmail.com

Author -2 Dimple Wadhawan



Dimple Wadhawan is a senior Project Coordinator at Superhouse Group, Kanpur, Uttar Pradesh. She hold the working experience in education industry and had been managing school essentials for APS, DPS and School Basket. She hold specialization in HR and Finance. She hold rich corporate exposure along with great interest in research work as well. An Alumnus of Kanpur University, she had completed her BBA and is perusing MA in Economics currently.

E-Mail – wadhawandimple20@gmail.com