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1st International Conference on Advance and Scientific Innovation (ICASI) IOP Conf. Series: Journal of Physics: Conf. Series 1175 (2019) 012160 IOP Publishing doi:10.1088/1742-6596/1175/1/012160 1 Expectations and challenges of using technology in education I Ketut Sudarsana1*, Komang Pusparani1, Ni Nengah Selasih1, Ni Kadek Juliantari2 and Pande Wayan Renawati1 1Institut Hindu Dharma Negeri Denpasar, Bali, Indonesia 2STKIP Agama Hindu Amlapura, Bali, Indonesia *iketutsudarsana@ihdn.ac.id Abstract.

The rapid development of the era gives effect to the field of education. It can be known from the presence of educational technology as a form of the development of science and technology (IPTEK). The presence of educational technology for some time certainly brings expectation to the provision of education to ease in every learning process.

But behind the ease given, there are challenges that include three components of educational technology namely hardware (hardware), software (software) and brainware (users) which are now reflected from the implementation of the Computer-Based National Examination (UNBK) that cause problems in the field of education. The challenge must be addressed to realize expectation to achieve the goal of education as a whole and comprehensive. 1.

Introduction The rapid development of the era is very influential in the pattern of human life. All forms of activity undertaken by an individual depend on the sophistication of science and technology. It can not be denied because the progress created always provide convenience for humans to comply with life necessities according to the times.

Today the era has entered the modern post of life era that is based on the progress of

science and technology which had an impact on every line of life including education. Education with science and technology has a close relationship. In other words, that education plays a very important role in the inheritance and development of science and technology which is one of the results of a human effort to achieve a better life.

On the other hand, every development of science and technology should be accommodated by education namely to immediately enter the results of science and technology development into teaching materials with all its aspects so that in general, the consequences cause institutional arrangement, stabilization of organizational structure and work mechanism and other managerial consolidation must be done by utilizing science and technology because of the urgent educational needs, so many technologies from various sciences were soon adopted into the provision of education.

The importance of technology in education is one of the foundations of education that must be understood. The situation has reflected that the influence of the era on education is inevitable because in Law Number 20 the Year 2003 on National Education System article 1 clause (2) mentioned that education is responsive to the changing demands of the times.

The same thing is expressed by Duija that education is a dynamic activity, following the pace of changing times and cultural dynamics. This is 1st International Conference on Advance and Scientific Innovation (ICASI) IOP Conf. Series: Journal of Physics: Conf. Series 1175 (2019) 012160 IOP Publishing doi:10.1088/1742-6596/1175/1/012160 2 reasonable because education must continue to adjust with the times, especially science and technology [3].

This opinion indicates that technology in the field of education is very important as a form of adjustment to the development of the era, so that education technology is present as an expectation for education providers to facilitate the implementation of education, but on one side education technology becomes a challenge for the education that has not been able to adjust with the rapid changes that occur.

Therefore, assessment of expectations or opportunities and challenges of educational technology needs to be done to used based on the needs in order to achieve the objectives of education as a whole and comprehensive. 2. Result and Discussion The formulation of technology is diverse. Many perspectives color the understanding of technology.

Moreover, the technology is defined as an electronic good in the form of hardware, then it is still a narrow view. The concept of technology certainly has a great role to the

concept of educational technology. In this case, technology is defined specifically, not just hardware or gadgets as is often encountered today, but in a broader perspective put forward by Prawiradilaga that technology is a knowledge applied by humans to solve problems systematically and scientific way.

Moving from the concept, then if associated with the field of education, educational technology will be able to overcome the problems that exist in the field of education [6]. But seeing the phenomenon associated with the field of education, it turns out that education technology has not been fully able to overcome the problem of education, but it creates new problems so that technological development becomes a hope and also become a challenge. 2.1

Expectations from the Development of Educational Technology It should be reiterated that technology is very helpful for the implementation of education, especially in the general education process. Because according to Mahendradhani that educational technology strengthens in engineering various ways and techniques from start design, development, utilization of various sources of learning, implementation, and assessment of learning outcomes.

Therefore, the development of educational technology indicates that the sophistication always brings expectation in facilitating every existing process in the world of education, especially in the learning process [4]. The development of educational technology capable of presenting various facilities through various tools or applications created can be utilized to make the learning atmosphere easier and fun and easy to access various information that can be a source of learning.

Even the development of education technology always mix and match with the use of technology can be used as a media even as a source of learning that is always used by educators in the learning process to attract the attention of learners. The progress also indirectly train teachers or learners to be more creative and wise in the utilization of educational technology.

so it seems very clear, that all components of education are greatly helped by the development of educational technology that always facilitates and assists in every learning process in order to achieve the overall educational objectives thoroughly. The same thing was in accordance with the views of Danim which states that the use of technology for educational activities, especially as an educational media is necessary for the context of teaching and learning activities.

Because with a scientific, systematic and rational approach based on the basic concept

of technology is also the goal of effective and efficient education will be achieved [1]. 2.2 Challenges of Educational Technology Assessing the technology of education in the current globalization as it happens today is certainly considered easy.

Technology seems to have been able to penetrate in all aspects of human life including education. However, on the different side, it turns out that educational technology that is in existence in its development turned out to have its own challenges that until now is still a polemic.

The polemic ranges from a narrow scope to a very global level because it includes three aspects that educators need to know in the utilization of educational technology, including: 1st International Conference on Advance and Scientific Innovation (ICASI) IOP Conf. Series: Journal of Physics: Conf. Series 1175 (2019) 012160 IOP Publishing doi:10.1088/1742-6596/1175/1/012160 3 a.

Educational Technology Hardware Discussing educational technology, of course, can not be separated from the hardware, such as laptops, computers, LCDs, projectors, gadgets and other objects that are always used in the learning process. The device is said to be a challenge because not all parties can own the goods. This is also due to the high price of the goods, so that it appears inequality, and will lead to the perception that education is expensive.

This perception is increasingly wild, because there is no complete understanding of educational technology, so that education as a pillar is expected to form a superior human resources from an economic perspective into an "expensive process" that sometimes impose the school situation to be able to keep up with the existing development , so it is not an uncommon outcome that is produced "premature" in the sense of not ready fully in accordance with the situation experienced which then impacted into problems in the world of education. This is a challenge that arises when talking about hardware as part of educational technology. b.

Educational Technology Software Rogers' view that technology concerns the hardware aspect (consisting of material or physical object), and software spec (consisting of information contained in the hardware). But the view is not fully understood by some parties, so the technology is still oriented to tangible goods. This is certainly a challenge for educational technology because through the system or application of this software is used to assist the implementation of education [4]. If this continues to happen then educational technology as a way or process of solving educational problems will not be achieved.

As a result, education will take place in the critical phases, meaning no meaningful implications for the advancement of education. The condition is very easy to note, especially for educators who are difficult to adapt to the development of educational technology, and still struggling with things that are traditional and manual, so the tendency to learn new things that exist in the software is very difficult and even takes a long time to understand features in the software. This is also a challenge for the development of educational technology that refers to software. c.

Educational Technology Brainware Educational technology that has been considered as a hardware and software, it has one more coverage that needs to be understood namely brainware or users. This user has a vital role in the development of educational technology. This indicates that humans as users are expected to utilize technology that is the result of human thinking sometimes has not been able to be used by other humans, so there is an imbalance between expectations with reality.

Therefore, the development of educational technology into hope as well as a challenge that must be immediately responded by all components of education, not only within the scope of classes or schools but at the level of the general public in global life. The presence of brainware in educational technology then refers to the basic concept that educational technology is not always dwelling on laptop or computer and applications that facilitate the process of learning, but how the presence of brainware is contributing to problem-solving that can be studied scientifically through the development of science that can be implemented in a practical.

This is very important to be understood because according to Dantes, education that can answer the challenges of the future is education that can form learners who have the knowledge, skills, and attitudes that can adapt to the era of globalization [2]. 2.3 Reflection of Education Technology Challenge becomes a difficult problem at UNBK Challenges related to the utilization of educational technology are generally felt by all parties, not only teachers as educators in school, but the community also become part of the challenge, especially in the implementation of Computer Based National Examination.

Implementation of Computer-Based National Examination by utilizing the development of educational technology is an effort to adopt technological developments in order to participate in improving the quality of school education. It is a positive breakthrough, but in certain situations will 1st International Conference on Advance and Scientific Innovation (ICASI) IOP Conf.

doi:10.1088/1742-6596/1175/1/012160 4 cause a new problem. Because the formulation of educational technology includes aspects of hardware (hardware), software (software) and brainware (users) who need to be conditioned to achieve educational goals, especially to measure the quality of national education through the results of tests conducted by learners in each school.

However, this has turned into a prolonged polemic, because not all schools can use the basis to demonstrate the quality of education quality nationally. Computer-Based National Examination is a reflection that the challenges of the development of educational technology become a complicated problem. This means that there is still an imbalance between the rapid development of science and technology with the quality of human resources generated.

Even Muliana said that when the computer-based national exam, "people who are not ready to use computers and computers are also not ready". That opinion refers to the components of educational technology consisting of hardware, software, and brainware that have a very vital role [5]. There is no dominating part, but the most important is the synergy that is established to be able to use the technology effectively and efficiently.

This becomes a serious challenge for education because it is a pillar that is expected to be able to print out a quality outcome and responsive to the challenges of the times especially in the development of educational technology to meet the expectations in realizing the goals of education as a whole and comprehensive. 3. Conclusion The presence of educational technology is a form of the world of education responsive to the demands of changing times in accordance with the mandate of the National Education System Act. The development of educational technology in accordance with the times is a hope and challenge in the implementation of education.

The expected hope is that educational technology can help ease the learning process because it can be present as a medium as well as a source of learning. But on the other hand, educational technology has its own challenges because it covers several aspects that include hardware, software, and brainware. These three things if not synergize well, it will cause new problems, as reflected in the implementation of Computer-Based National Examination (UNBK) which shows that there is still an imbalance between each component, so the challenge raises problems in the field of education.

Therefore, the current development of educational technology between the expectations or challenges for the world of education. References [1] Danim, S. (2008). Media Komunikasi Pendidikan . Jakarta: PT. Bumi Aksara. [2] Dantes, N. (2014). Landasan Pendidikan (Tinjauan dari Dimensi Makropedagogis). Yogyakarta: Graha Ilmu. [3] Duija, I.

N. (2015). Pendidikan Agama Hindu di Tengah Modernitas Sosial Budaya Sebuah Gagasan Etnopedagogi. Makalah Seminar Nasional I (p. 14).

IHDN Denpasar: Fakultas Dharma Acarya. [4] Mahendradhani, I. G. (2016). Teknologi dan Komunikasi dalam Pembelajaran Agama Hindu. Pankaja Jurnal Agama Hindu (p. 79). Denpasar: Program Pacasarjana IHDN Denpasar. [5] Muliana, I. N. (2018). Penerapam Kinerja Berbasis Elektronik. Denpasar: Bali Post. [6] Prawiradilaga, D. S. (2012). Wawasan Teknologi Pendidikan. Jakarta: Kencana Prenada Media Group.

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