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The Effect of Technology in The Development of Interior Design in Today's Digital Age

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ABSTRACTS

In the digital era, technology is increasingly developing, affecting the development of science and various other aspects. The development of digital technology can have a big influence in the field of interior design, both in the field of education and the profession to help create works. In the digital era, manual methods are now being replaced by technology, even though the fact is that there are still some designers who use manual methods in creating their work. The purpose of this paper is to find out what are the effects of technology in the development of interior design in today's digital era. The method used in writing is a literature study, by conducting research from the related literature. From the results of the literature study, it can be concluded that digital technology has an effect on making it easier to make the interior design process as well as assisting in adaptability for the future. This paper discusses how the influence of technology in the development of interior design in the current digital era, both in the field of education and the profession. Technology in the development of interior design in the digital era now greatly influences a designer in helping to create works more easily and efficiently.

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1. INTRODUCTION

Interior design is a science that involves aesthetics, ideas, creativity and technology and information (Ahmad & Musfy, 2020). In the past, designers used manual methods in creating their works, such as using paper and drawing tools (pencils, pens, markers, colored pencils, etc.) In addition, the precision and accuracy when working manually is quite low compared to when using a computer which is known to be more accurate. Interior design is also required to display aesthetic visuals, with this limitation of course it cannot be realized optimally, because the client cannot see the design more realistically (Kan & kaufmann, 2017).

Current technological developments continue to increase, and many have a positive impact on users, making it easier for designers to create their work. Technological developments have an influence on designers both in the field of education and the profession (Cho et al., 2016). In terms of quality, designers compete to show aesthetics, function, technology and art (Aprilia & Wantoro, 2021). In the era of globalization, interior design in the design process undergoes a change that is influenced by technological developments, one of which is computers, with computers accompanied by hardware and software making progress in designing designs, making them faster and more efficient. The computer is equipped with a hardware (hardware) that integrates with a software (software) that can make objects in the virtual world become real. One of them is Augmented Reality, AR is a technology that combines virtual or unreal, two-dimensional or three-dimensional objects into something as if it were three-dimensional and then

projects these virtual objects in real time so that physical interaction occurs between virtual and real (Palmarini et al., 2018).

Interior design is an art in spatial planning that makes the room look more beautiful and attractive according to the desired design (Taylor & Haskell, 2019). The interior design of the building is formed by architectural elements of the structure which consist of space, color, light, sound acoustics, air circulation, accessories and furniture. Interior design is required to display a real visual. For this reason, interior design along with the rapid development that requires design, the time needed is getting narrower, with the existence of technology, one of which is a computer that provides convenience to designers in the fields of education and professions (Afacan, 2016).

Therefore, we as writers are interested in the phenomenon that occurs in this era of globalization, namely, how is the influence of technology and information on the field of interior design in the era of globalization? The problem of this writing is limited to today's technology and information that affects the design of interior design. The author's aim is to find out the benefits of advances in technology and information in the field of interior design.

2. METHOD

The research method used is a literature study with library data collection methods, reading and taking notes, and managing research materials with the aim of making relevant information, obtaining problem solutions, and deepening the researcher's knowledge about the problems and areas being studied.

3. RESULTS & DISCUSSION

3.1. Communication

Since ancient times the process of human interaction from era to era has changed for the better. For example, the way we communicate. Since ancient times, humans have applied the technology they discovered just to communicate from one region to another, so that humans' achievements in communicating are as recent as today (El-Ghobashy & Mosaad, 2016). For this reason, see below for what tools humans use to communicate.

In the pre-digital era, designers discussed their designs with clients using letters, money orders with post office services or person to person and telephone. Meanwhile, in today's digital era, designers quickly and efficiently use internet services, virtual meetings, social media, mobile phones, telephones and others, with the exception of some of them for hard copy documents in the form of volume drawings and fixed presentations through person-to-person

delivery services and post office services (Hasti & Kurnia, 2019; Lake et al., 2020).

3.2. Data mining

In searching for data, first, the developers searched for data by using hand notes and digging for information on a particular choice of sources, while nowadays designers can find data through computers and virtual in the form of internet data that can be accessed easily and quickly with a lot of information that supports the extracted data.

3.3. Preliminary sketch design

In terms of making initial sketches, designers used to create concepts using hand sketches, and color visualization using colored pencils, markers, watercolors, oil paints, while in the current era, sketching is not only done manually but can be done through smart phones, net books and other media. Computers and various data processing with software related to interior design (see figures 1 & 2).

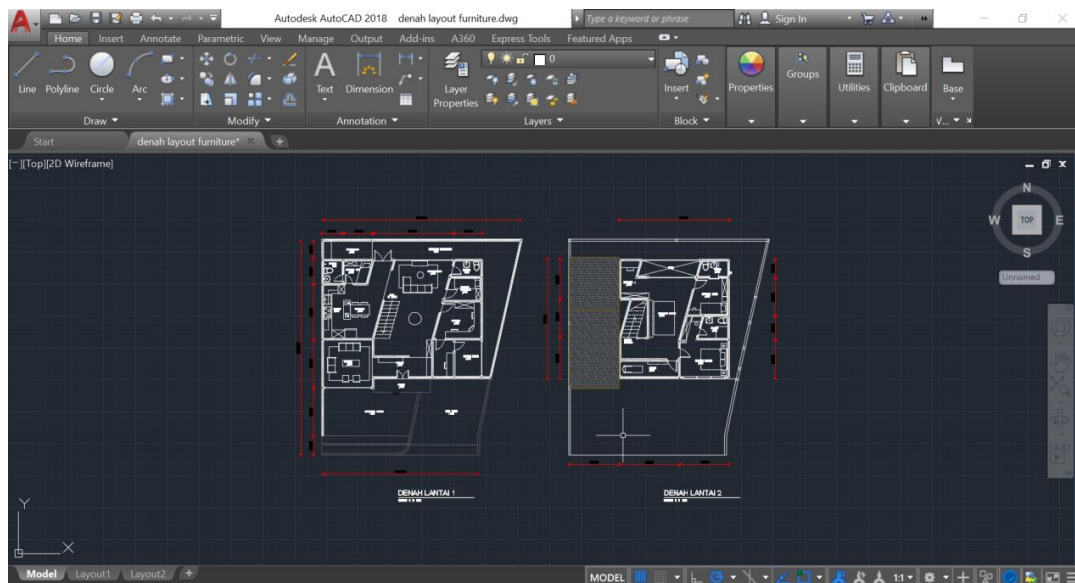


Fig. 1. Initial sketch design using Autocad software

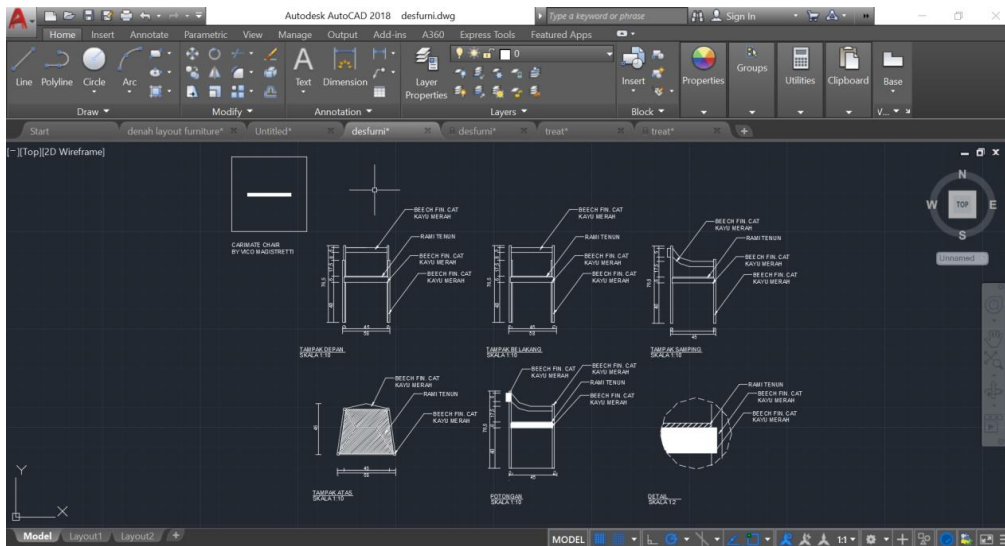


Fig. 2. Make a sketch using Autocad software

3.4. Design Development

After the development of these technologies, it is easier for us as interior designers to visualize the designs more clearly and in detail. Because before the existence of easy applications such as

Sketch up, interior designers used mockups as a medium to display a visual picture of the design (Sitanggung et al., 2020). With this progress, it is certainly very convenient from various aspects such as time and material, and can help in the ability to adapt in the future (see figures 3 & 4).

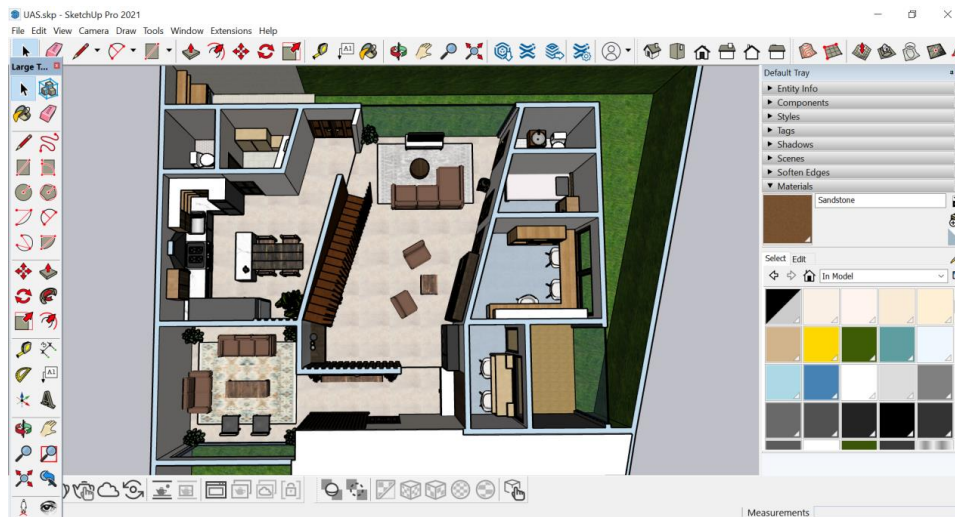


Fig. 3. Create 3D models using Sketchup software

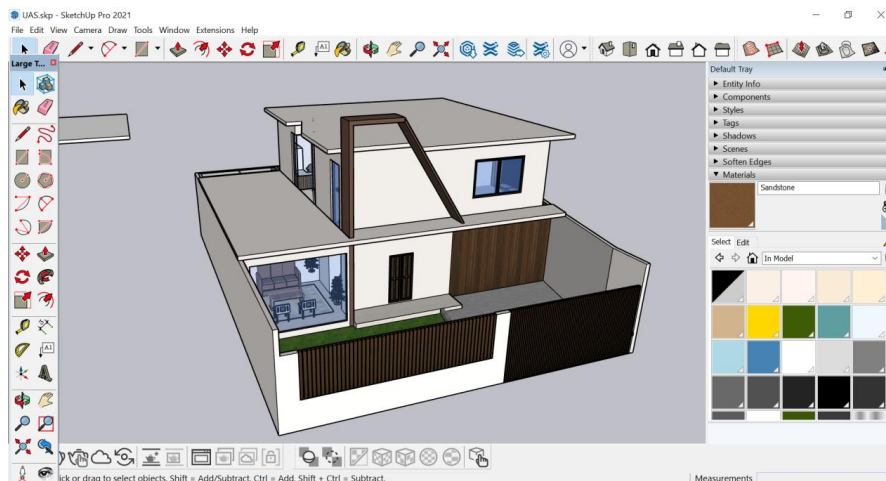


Fig. 4. 3D Modeling Results

3.5. Service Marketing

Marketing or advertising of interior design services in the period before the development of technology was through individual to individual, acquaintance, or joining a company team. But after the development of technology becomes more sophisticated, now interior designers can market their services

through internet sites such as websites and social media networks. The media can also attract more customers by making videos, creating advertisements that can be placed on all social networks, and promoting through endorsement services.



Fig. 5. Interior design advertising website

4. CONCLUSION

Almost all technology brings progress in human life, one of which is in the field of interior design. With technology, designers can make designs faster and more effectively. Because now there are many software's

that are used for designers in making designs. In addition, the results of the designs made are also neater and more accurate. Not only that, advances in technology have also made marketing easier. People can easily recognize the works of designers through the web and social media.

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