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PERKEMBANGAN SAINS DAN TEKNOLOGI DARI PERSPEKTIF ETIKA KEHIDUPAN MANUSIA

GROUP 5

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INTRODUCTION

The rapid development has become a race between developed countries such as the United States and Japan. Various new drugs and treatments can be developed to treat patients with various diseases. In addition, collaboration between science & technology also contributed to self-health observation when smart watches were successfully created. Every individual can use this watch and take care of their health on their own. It can definitely give birth to a healthy and prosperous society. Ultimately, the development of science & technology is important in maintaining the natural treasures that we have today for the sake of the future.

ISSUES

The Relationship Between Science, Technology, And Human

Systems And Practices Of Science And Technology

Islam and Biotechnology

Ethics, Morals And Belief Systems: Solutions to Science and Technology Issues

Nuclear

TECHNOLOGY IN THE ANCIENT WORLD

The Beginnings—Stone Age Technology (To C. 3000 BCE)

- The identification of the history of technology with the history of humanlike species does not help in fixing a precise point for its origin, because the estimates of pre historians and anthropologists concerning the emergence of human species vary so widely.

- Animals occasionally use natural tools such as sticks or stones, and the creatures that became human doubtless did the same for hundreds of millennia before the first giant step of fashioning their own tools.

- A degree of specialization in toolmaking was achieved by the time of the Neanderthals (70,000 BCE); more-advanced tools, requiring assemblage of head and haft, were produced by Cro-Magnons (perhaps as early as 35,000 BCE); while the application of mechanical principles was achieved by pottery-making Neolithic (New Stone Age; 6000 BCE) and Metal Age peoples (about 3000 BCE).

TECHNOLOGY IN THE ANCIENT WORLD

Earliest Communities

- For most of human existence, humans lived in small nomadic communities dependent for survival on their skills in gathering food, hunting and fishing, and avoiding predators. It is reasonable to suppose that most of these communities developed in tropical latitudes, especially in Africa. They moved out thence into the subtropical regions and eventually into the landmass of Eurasia.

The Neolithic Revolution

- Some 15,000 to 20,000 years ago, some communities began to make the transition from savagery to a more settled way of life. This period of transition, the Neolithic Period, or New Stone Age, led eventually to a marked rise in population and size of communities. It is sometimes referred to as the Neolithic Revolution because of the speed of technological innovation.

TECHNOLOGY IN THE ANCIENT WORLD

Stone

- Stone tools of early humans have survived in surprising abundance. Stone became tools when they were shaped deliberately for specific purposes. Early tools were held in the hand, but gradually ways of protecting the hand from sharp edges on the stone, at first by wrapping one end in fur or grass or setting it in a wooden handle, were devised.

Power

- The discovery that fire could be tamed and controlled in prehistoric times was momentous. Little power was obtained directly from fire except as defense against wild animals. It seems likely that by the end of prehistoric times the sail had emerged as a means of harnessing the wind for small boats.

TECHNOLOGY IN THE ANCIENT WORLD

Tools And Weapons

- The Neolithic Revolution led to the development of the stone-headed spear, the harpoon and the bow and arrow. The use of these weapons in hunting is shown in cave paintings of southern France and northern Spain. Also important were the first mechanical applications of rotary action in the shape of potter's wheel, pole lathe and bow drill. The potter's wheel, driven by kicks from the operator, and the wheels of early vehicles both gave continuous rotary movement in one direction. The drill and the lathe, on the other hand, were derived from the bow and had the effect of spinning the drill piece or the workpiece.

Building Techniques

- In the New Stone Age some impressive structures were erected, primarily tombs and burial mounds but also domestic housing in which sun-dried brick was first used. In northern Europe, where the Neolithic transformation began later, huge stone monuments still bear eloquent testimony to the technical skill of the later Stone Age societies.

TECHNOLOGY IN THE ANCIENT WORLD

Copper And Bronze

- Archaeologists agree that there was no true "Copper Age" except perhaps for a short period at the beginning of Egyptian civilization. Attention was given early to means of hardening copper to make satisfactory tools and weapons. Bronze smiths took over from coppersmiths and goldsmiths the technique of heating the metal in a crucible. Bronze became the most important material of the early civilizations, and elaborate arrangements were made to ensure a continuous supply of it. Bronze Age civilizations were compelled to search far beyond their own frontiers for sources of the metal. The sailing ship assumed a definitive shape, progressing from a vessel with a small sail rigged in its bows to a substantial oceangoing ship of the later Egyptian dynasties.

Irrigation

- Egyptian and Sumerian civilizations depended heavily upon the two great river systems, the Nile and Tigris-Euphrates. Mesopotamian irrigation engineers channeled water from the rivers during the summer months, impounding it, and distributing it to the fields in small installments. Both systems, however, depended on a high degree of social control and intricate engineering for their success.

TECHNOLOGY IN THE ANCIENT WORLD

Urban Manufacturing

- Production of pottery, wines, oils, and cosmetics were among the products traded before the introduction of metals. Pack animals were still the primary means of land transport, the wheeled vehicle developing slowly to meet the needs of agriculture, trade, and war. Military technology brought the development of metal plates for armour.

Building

- In Egypt, clay was scarce but good building stone was plentiful, and builders used it in constructing the pyramids and temples. Sumerians were also the first to build columns with brick made from local clay. It seems certain that the heavy labour of construction fell upon armies of slaves.

TECHNOLOGY IN THE ANCIENT WORLD

Transmitting Knowledge

- In the ancient world, technological knowledge was transmitted by traders and craftsmen in metal, stone, leather, and other medium. This transmission through intermediary contact was occurring during the 2nd millennium BCE. Finally, the introduction of the technique of working iron profoundly changed the capabilities and resources of human societies.

The Mastery Of Iron

Other Fields Of Technology

TECHNOLOGICAL ACHIEVEMENTS OF GREECE AND ROME (500 BCE-500 CE)

Transport

ACHIEVEMENTS OF FROM THE MIDDLE AGES TO 1750

Medieval Advance (500–1500 CE)

Innovation

Byzantium

India

Islam

China

Power Sources

Agriculture And Crafts

Architecture

Military Technology

Transport

Communications

THE IMPORTANCE OF DEVELOPMENT OF SCIENCE AND TECHNOLOGY FROM THE ETHICAL PERSPECTIVE OF HUMAN LIFE

- **The ethics of science and technology are very important in this field.**
- **The first is to serve as a guideline for scientists and technocrats in their work.**
- **The presence of ethics provides guidance for scientists to know what needs to be done to ensure safety and make things work more orderly.**
- **Furthermore, ethics is important in protecting human interests from science's greed, which undermines human security.**
- **In order to produce highly disciplined scientists and technocrats, science and technology ethics are critical.**
- **Ethics will also ensure that technology is used responsibly.**
- **Scientists may be unable to use technology at their leisure due to ethical considerations in research and technology.**
- **As a result, ethics is extremely important.**

IMPLICATIONS OF ETHICS IN THE DEVELOPMENT OF SCIENCE AND TECHNOLOGY

DISCOURSE AND POLICY MAKING

OPEN AND TRANSPARENT RELATIONSHIP BETWEEN INDUSTRY AND CONSUMER

BETTER REGULATION

GREEN MARKETING

SUSTAINABILITY

IMPLICATIONS OF ETHICS IN THE DEVELOPMENT OF SCIENCE AND TECHNOLOGY

STANDARDS IN SCIENTIFIC RESEARCH

PROPER TREATMENT OF ANIMALS AND HUMANS

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THANK YOU FOR LISTENING!

QUESTIONS ?