

1

Defining Technology

1.1 Introduction

A technology refers to a technique or tool that enhances the individual power to manipulate one's environment. The word "technology" itself is derived from the Greek word of "tekhnologia."

Technologies are often conceptualized as referring to "high-tech" devices thanks to the developments within the scientific field. It may come as a surprise to most individuals that even the laptops in our backpacks may be considered as a kind of technology since it was developed by Dick Kelty in the 1950s. Similarly, the pencil can be considered as a communications technology that was developed several hundreds of years ago and refined to its final form by a man serving in Napoleon's army in the 1790s.

According to some religious traditions, our Creator himself can be considered as the first technologist, given the clothing fashioned by Him for Adam and Eve on their departure from the Garden as a kind of "garments of skin." Technology's ambivalent nature is already reflected in this earliest technology in the form of being an artificial tool or substitute that functions as a supply to that which was lacking in our natural state. Moreover, Prophet Noah can be considered as the first carpenter of this world since he used to design his ark which not only acts as an unnatural covering made necessary by death but also serves as a sacred vessel for shielding others in their vulnerability. A range of technai – skills or crafts – include smithing, woodworking, and weaving as items are utilized for a meaningful design. Therefore, "techne" emphasizes the act of development as the individual is not completely expressing his art unless he is creating actual artifacts which enhance the lives of others by being useful.

Given various definitions of technology, the one co-developed by Challies and Dyer seems to be the most meaningful and relevant one given the scope of this book. These scholars refer to the meaningful act of tool development

2 Defining Technology

to transform God's creation for practical purposes as "technology." Given the fact that individuals have used tools to contribute to the flourishing of human beings since Adam, it is time to consider how Muslims might see technology as crucial to their deeds. What may be their main concerns as well as unique opportunities for service given their faith?

Some of us like me optimistic about our times perhaps because of the fact that we have not only been wired by God for possessing such a nature, but perhaps more due to truly believing in the sovereignty of our Creator. Given our unshakeable belief in God's sovereignty, we must live more responsibly and thoughtfully as we also believe in the consequences of our actions in the next world. In order to create a positive impact upon our times and culture in history in which our Creator has created us, we all must be familiar with the productive use of these technologies and tools of our times. There is no choice for us of opting out if as Muslims we truly believe that one of our major struggles is to impact the world in a positive way. As the Qur'an states, the proper foundation for our lives is the teachings of the Prophet Mohammad (s.a.w.w):

"Allah showed great kindness to the believers when He sent a Messenger to them from among themselves to recite His Signs to them, purify them and teach them the Book and Wisdom, even though before that they were clearly misguided." [3:164]

"[The believers are] those who follow the Messenger, the unlettered Prophet, whom they find written down with them in the Torah and the Gospel, commanding them to do right and forbidding them to do wrong, making good things lawful for them and bad things forbidden for them, relieving them of their heavy loads and the chains that were around them. Those who believe in him, honor and help him, and follow the Light that has been sent down with him are successful." [7:157]

At the beginning of history, as ancient communities were organized around evolving agricultural and communication technologies, the delicate combination of these technologies along with the physical labor constituted a crucial aspect of the monastic life. Being one of the 12th-century Augustinian scholars, Hugh of St. Victor shared his insights into the basic study of God in his work referred to as the "Didascalicon." Perhaps, technological improvement of the world may be part of our struggle in this world and the created order.

For ancient scholars such as Hugh and his followers, knowledge can be classified as follows:

- The practical (politics, economics, ethics),
- The theoretical (theology, mathematics), and
- The mechanical or technical (techne as medicine and fabric-making).

Classified as a fourth category, the field of logic, underpins all other three fields by providing certain rules for argumentation and rhetoric. According to these ancient scholars such as Hugh and Augustine, all knowledge leads to the Creator, so the technological quest shall also inquire into the natural order the Creator ordained, and thus into the Creator himself. In other words, technology has great potential for being spiritual as well. Despite the fact that most of the classical authors demeaned mechanical crafts, Hugh could harmonize the scriptural and technological understanding by treating technology as a means to compensate for our physical weakness. Our ability to serve the Creator and its creation is further enhanced by technology which allows humankind to become His servant in the natural world.

Being one of Hugh's followers, Godfrey asserted that the cultivation of mental disciplines is required for the mastery of the mechanical arts in order to be able to manage our thoughts and passions. This may seem contrary to one of the common criticisms of the modern day technology given the fact that its enjoyment often ends in distraction. According to Godfrey, the correct employment of technologies can help the mind to obtain the necessary focus and observation skills which influence the quality of good prayer.

According to the theologian Bonaventure, who used to live in the 13th century, the mechanical arts can be practiced to convey the grace of the Creator to others. To give a more specific example, the architect can be considered as providing a vessel of grace for the family who is going to live in the home he designed. So the mechanical arts can be conceptualized as instruments of both divine love and neighborly love. Early technologies such as quill and ink, paper and parchment – all have been important for the spread of religion.

Fast forward to the 21st century, we now have less ink and paper and more digital applications and video games. Nevertheless, they can still be utilized by taking into account the basic principles of faith.

1.1.1 Technology or Soulcraft?

The video game developer Blizzard Entertainment, best known today for its massively popular World of Warcraft (2004), first released a less known

4 *Defining Technology*

classic in 1998: StarCraft. The science fiction warfare and strategy game was the bestselling PC game of the year, and it sold nearly 10 million copies over the next decade. Professional competitions drew crowds of over 100,000 people in South Korea, where the game was so popular that three separate television stations regularly broadcast matches. Blizzard released a sequel, StarCraft 2: Wings of Liberty, in 2010 and a remake of the original, StarCraft: Remastered, in August 2017. From the right perspective, the checkered story of its creation offers lessons that extend far beyond the sphere of computer games and coding into our social and spiritual lives.

Coming off the heels of its success with the first two Warcraft games (precursors to World of Warcraft) in 1994 and 1995, Blizzard wanted to continue pumping out the hits every year. For those not old enough to remember, keep in mind that this was the time of CD-ROMs and dial-up Internet. The online world we take for granted and carry with us in our pockets today was in its infancy. Producing software far below our contemporary standards often took just as much, if not much more, work. Blizzard had high ambitions, to put it lightly. Patrick Wyatt, one of the lead game developers for StarCraft, told the story at length in 2012 on his blog Code of Honor and explained how with a limited timeframe and human resources, the StarCraft team's goal of developing a modest game could be described as "Orcs in space."

Another project (Diablo) from a newly acquired company (Condor, renamed Blizzard North) sucked away resources from StarCraft. As this Diablo project was extended in its scope all type of employees ranging from programmers to sound engineers working at Blizzard HQ dedicated their efforts to the game until StarCraft had no one left working on the project. Wyatt describes how the growing market for real-time strategy (RTS) games like StarCraft meant greater competition and how that competition pushed them to produce a better product. The unrealistic production schedule led to a cascade of problems. Personnel suffered from lack of experience at all levels, from junior coders to project leaders. StarCraft ran the risk of succumbing to what the economist Kenneth Boulding called the "sacrifice trap," where people continue to support a failed cause or relationship because they are too committed to its success.

One need not know anything about coding to share in the lessons Wyatt and his team learned along the way. Here, we see again a lesson that reaches far beyond the world of computer programming. Wyatt notes how the "many months of suffering" led him to improve his craft of coding for the better. So we may also note the ascetic benefit of enduring trials. Regardless of the level

of sophistication of a particular tool or technology that is being developed – whether it is parchment or a video game – basic principles of faith are always in use. As stated in the Qur'an:

“Oh you who believe! Seek help with patient perseverance and prayer, for God is with those who patiently persevere.” [2:153]

There is something more here, however. As Wyatt implies, what the team needed to honestly stare their problem in the face, set aside the urgency of their self-imposed deadline, and build on a more stable foundation. As it has been stated in the Qur'an:

“Indeed, mankind was created anxious.” [70:19]

Taking the time to calm one's anxieties before acting leads to wiser and more effective (not to mention virtuous) actions. The Islamic tradition is abundant with resources for inspiration on how to enrich our societies in a more humane and developed way. The question that needs to be asked is whether we are inclined to recover those sources rather than being busy with enjoying the fruits of technology. Despite all the setbacks and missteps, StarCraft still managed to build upon a solid gaming foundation. Viewed from the lens of a spirituality of everyday life, even something ordinarily thought to be a great distance from religion, economics, and philosophy – computer games and coding – may contain gems of social and spiritual wisdom, if only we have eyes to see them.

