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Typology of Value Driven Approach in Artifact Design (Case Study of Conceptual Design with Economic, Emotional, and Moral Approach)

Abstract

Problem Definition: In the contemporary world, human artifacts are more than simple tools of convenience in our daily lives. They actively shape, although indirectly, human actions and experiences, individuality, quality of life, decisions and values, and affect the way we adhere to ethics. Therefore, considering the important role of these artifacts in the moral dimension of our social life, and also the slow progress of society's ethics compared to technological advances, a designer can materialize moral values as interactive performative artifacts with an emotion-driven design approach, and present them to society aiming at arousing and encouraging the actants to act morally and also help improve social moral values. But "what are the characteristics of these moral artifacts and how can they help moralize life and society more effectively"?

Objective: The goal of the research is first and foremost, to investigate the features and functions of interactive value driven artifacts by studying existing examples. Second, to explain the principles of designing such artifacts; and finally, to realize these principles as design concepts.

Research Method: The research adapts the «descriptive-analytical» method. Using this method, it first investigates interactive value-driven artifacts (based on theoretical studies), and discusses the existing examples of these artifacts with an emotion-driven approach.

Results: By examining and analyzing interactive value-driven artifacts (economic, emotional, and moral) which have been purposefully selected under the research, it can be claimed that interactive value-driven artifacts with an emotion-driven approach, and also performative artifacts, can be effective in creating awareness and encouraging reflection because of their ability in creating admiration, guilt, encouragement and reproach (during the process of interaction or as a consequence of interacting with them). As a result, they can change the behavior of their users and ultimately result in the promotion of ethics in society.

Keywords

Industrial Design, Value-Driven-Design, Emotion-Driven-Design, Interactive design, Moral

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Introduction

Humans are nowadays witnessing the vast influence of technological and non-technological artifacts, directly and indirectly, through their mediating role in their moral life, both personally and socially. With the assumption that artifacts and the surrounding environment of humans are involved in the formation of their actions, beliefs and even feelings and are surprisingly capable of influencing them, it is possible to claim that design is a «materialization of moral issues», and value-driven artifacts could be designed effectively to try, and improve morality in society. The question, however, is: «What are the characteristics of these moral artifacts and how can their presence result in a more moral life and society? How can artifacts, as a component of the material dimension of life, lead humans to perform moral actions by developing reflection and awareness? What does «moral value» mean and what are the basics, principles and approaches of designing an artifact centered on moral values?» These are all questions that will be answered throughout the present research. Accordingly, the authors first discuss value driven artifacts and their different categories, and then continue to examine the emotional approach in designing moral artifacts and analyze the purposefully selected examples of these artifacts (which are in line with the research topic), and finally explain the principles and characteristics of these types of design. Moreover, in the end, the concluded principles and rules based on theoretical research studies are realized practically as value-driven artifacts.

Research Method

The current research is descriptive-analytical, and the qualitative data and the principles of value-driven design have been explained, using sources related to the fields of values, ethics, design, as well as the analysis of purposefully selected samples. Finally, based on information extracted from library sources, the interaction between humans and artifacts has been given a framework, which the authors have used to design value-driven artifacts and services.

Research Background

«Florman» (1987) states in his book «The civilized engineer» that until the late twentieth century, technology was commonly regarded as value-neutral. Mainly of instrumental value to human endeavours and activities. «Winner» (1986) was among the first philosopher of technology who devote extensive attention to the active role of artifacts and the purposefulness of technology and in this regard, he analyzed and investigated several technologies that have moral significance and also politically charged technologies. In his book «Do Artifacts Have Politics?» In the example of «low-hanging overpasses on parkways giving access to the beach», he argued that technology is not value-neutral, but represents moral and political choices: «racist overpasses in New York, over the parkways to Jones Beach on Long Island that designed by architect Robert Moses, were deliberately built so low that only cars could pass beneath them, not buses. This prevented the African American population, at that time largely unable to afford cars, from accessing Jones Beach. Moses apparently had found a material way to bring forth his political convictions. His bridges are political entities. The technical arrangements involved preceded the use of the bridges. Prior to functioning as instruments to allow cars to cross the parkways, these bridges already encompass[ed] purposes far beyond their immediate use». He admits that: «Technology is a solution to create the world» and also believes that: «Some technologies actually embody human intentions materially and some other have a political impact

without having been designed them to do so. This kind of unintentional moral impacts occur because of some kind of «motivation» of technology; Like the automatic tomato cultivation machine, there was never an explicit intention to make tomatoes less tasty unsustainable and to cause small farms to shut down-but still these were the political consequences of the mechanical tomato harvester». «Foucault» ([1984] 1992) is the first person who could recognize the moral importance of material artifacts and the Constructive influence of things and also redefine the concept of freedom in his book «The Use of Pleasure, The History of Sexuality» in a way that it is in line with the phenomenon of technological mediation.He also believed that technology creates the way in which the subject is actively formed and can be the starting point for «self practices». «self practices» is a term Foucault uses to describe the methods that should examine and shape how each person deals with pleasure. In his book "Discipline and Punish: The Birth of the Prison «Foucault» (1975) considers that human intentions are not «authentic» but result from structures of power that can also be present materially. «Ihde» (1990) has characterized mediating role of artifacts in terms of what he calls technological intentionality in his book «Technology and the Life world» and he also believes technologies, as it were, contain an «implicit user's manual» which we call «script» of technologies. Like the script of a movie or a theater play, artifacts prescribe how their users are to act when they use them. «Latour» (1992) acknowledged that moral agency is not only human but incorporates nonhuman elements as well, according to «actor-network» theory in his book «Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts». By attributing morality to material artifacts, Latour deliberately crosses the boundary between the subject (human) and the object (non-human) reality. Based on this theory, «Latour» (1993) points out in his book «We Have Never Been Modern» that human and non-human identities are built only in interaction with each other and in a communication network. He therefore prefers to speak of «actants» rather than «actors» Actants must not be conceived as free-standing entities that then enter relations with each other. Only in these relations do they become actants; they «emerge» within the networks that exist between them. «Latour» (1994) also emphasizes in his book «On Technical Mediation: Philosophy, Sociology, Genealogy» when an artifact with a script that determines how humans use them enters a relationship with a user who has a particular action, the original programs of action of both are translated into a new one using praxis mediation which involves transformation of actions based on invitation and inhibition system. Accordingly, «Latour» (1999) answers the question «Do people kill people or do guns kill people?» in his book «Pandora's Hope» in this way: «A gun must not be seen as the sole actor in a shooting, and certainly not as a neutral means to an end; there would be no shooting without a weapon, nor without a gunman». In his book «Technology: The End of the Means» «Latour» (2002) does not consider technologies as intermediaries, that merely helping human means to be provided in the material world; but also considers them as mediators that actively help to shape realities. «Albert Borgmann» elaborates how our culture is ruled by what he calls the «device paradigm» In his theory. «Borgmann» (1995) admits «devices» (like radiators of a heating installation) are material machineries that deliver consumable «commodities» for us and contributes a characteristic and constraining pattern to the entire fabric of our lives in his book «The Depth of Design»; While "things" (like fireplaces) evoke practices in which human beings are engaged with reality and with other people. In his book «Real American Ethics: Taking Responsibility for Our Country», «Borgmann» (2006) distinguishes between two kinds of reality: one commanding (calls forth a life of engagement that is oriented within the physical and social world -like

traditional musical instrument), the other disposable (induces a life of distraction that is isolated from the environment and from other people -like stereo). According to Borgmann, the device paradigm increasingly replaces commanding reality with disposable reality, and also replaces things by the availability of commodities delivered by devices. The device paradigm is thus a pattern in which things that promote engagement become replaced by devices that invite only consumption. «Borgmann» (1992) also considers the way to reach the answer about «good life» in his book «Crossing the Postmodern Divide» in using «focal things and practices», by which he means the things that draw together human involvements. «Verbeek» (2005) in his book «What things do?» believes that technological design is unavoidably a moral activity; because industrial designers produce artifacts that mediate the relations between human beings and their world and shape human experiences and existence. Technologies help to determine how people act, so that it is not only people but also things who give answers to the classical moral question, «How to live?» On this basis, he emphasizes designers should expect the mediating role of these products with special attention to their sensory aspects - in order to create a sensory connection between humans and their world. He also claims that if products are to encourage human attachment, it is necessary to design them so that humans deal with the products themselves and not only with what they do or signify. In this regard, «Verbeek» (2011) in his book «moralizing Technology» gives the example of the Eternally Yours industrial company, which is active in «ecodesign[1]». Eternally Yours focuses on developing ways to create product longevity and these products therefore embody an «environmental ethic». Users of these artifacts do not just use its services, but the engaging capacity of products invites attachment during the product's use. Therefore, these products are not a mere commodity. Consumers find a kind of sense of attachment to them and turn them to their partners in their life, which can support their memories. The subject of moral values in designing artifacts is a neglected topic that, like many other issues in this field, has not been properly addressed. Therefore, it seems necessary to bring this subject up and address its various dimensions, which is the general goal of the current research, by examining value-oriented design approaches, analyzing existing examples, and defining the design principles and designing artifacts based on it.

Value driven design

In the design of value driven artifacts, we can refer to two different economic and ethical approaches, which will be discussed separately in the research's continuation, and in order to better understand the concepts, the existing examples of artifacts corresponding to these approaches are presented.

1. Value driven design (economic value): In a narrow sense, the word «value» refers simply to the «economic worth» of an object (Friedman, Kahn, & Borning, 2006, p. 57). The economic approach in value-oriented design focuses on concepts such as «achieving a result superior to that of the competitors (creating a competitive advantage) by making a well-designed product and «superior result is defined as a greater ratio between the profits realized and the capital invested» (Mozota, 2006, p. 46). To better describe this type of design and to evaluate it, I can refer to the design of the «Quechua» Two-Seconds tent (See Figure 1), a tent that can literally be thrown into the air and will open on its own before it reaches the ground. This tent radically reduces the time needed to erect a tent, and the camper has only to put six tent pegs in the ground to secure it. The Two-Seconds Tent is reasonably priced at 49 euros and the design of this tent is included in the category of sustainable design[2] due to not considering the packaging for it (the tent cover acts as

carrying pack) and applying measures to increase the lifespan. The design of this tent, in the first year of production, has led to a 78% growth in number of tents sold and 51 percent revenue growth in tent sales, and has won different awards[3] in 2006 (Mozota, 2006, p. 51).

Figure 1. Quechua two-seconds tent literally pitches itself. Source: Mozota, 2006, p. 51.

2. Value driven design (moral value): value, besides its economic meaning, also has a broader meaning of the term wherein a value refers to what a person or group of people consider important in life (Friedman et al., 2006, p. 350). Our values are the principles by which we live. They are the core beliefs, morals and ideals of individuals and are reflected in their attitudes and behaviors in society. The values held by individuals influence their perception of the world and, more specifically, their assessment of products and services (Thomson, Austin, Devine-Wright, & Mills, 2003, p. 337). Table 1 provides a list of human values with ethical import along with working definitions and references to the literature.

Table1. List of morally important human values, along with their definitions. Source: Friedman et al., 2006, pp. 351-352.

Definition	Human value
Refers to people's physical, material, and psychological well-being.	Human welfare
Refers to a right to possess an object (or information), use it, manage it, derive income from it, and bequeath it.	Ownership and Property
Refers to a claim, an entitlement, or a right of an individual to determine what information about himself or herself can be communicated to others.	Privacy
Refers to systematic unfairness perpetrated on individuals or groups, including pre-existing social bias, technical bias, and emergent social bias.	Freedom from bias
Refers to making all people successful users of information technology.	Universal usability
Refers to expectations that exist between people who can experience good will, extend good will toward others, feel vulnerable, and experience betrayal.	Trust
Refers to people's ability to decide, plan, and act in ways that they believe will help them achieve their goals.	Autonomy
Refers to garnering people's agreement, encompassing criteria of disclosure and comprehension (for "informed") and voluntariness, competence, and agreement (for "consent").	Informed consent

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Definition	Human value
Refers to the properties that ensure that the actions of a person, people, or institution may be traced uniquely to the person, people, or institution.	Accountability
Refers to treating people with politeness and consideration.	Courtesy
Refers to people's understanding of who they are over time, embracing both continuity and discontinuity over time.	Identity
Refers to a peaceful and composed psychological state.	Calmness
Refers to sustaining ecosystems such that they meet the needs of the present without compromising future generations.	Environmental Sustainability

In this approach, «moral values» that need to be supported by the technology-in-design replace the technological functionalities as the primary focus of design activities (Verbeek, 2011, p. 114). For example, we can think of the role that social media such as Facebook have played in recent political movements against oppressive regimes, as a platform for sharing both emotions, enable people to build relations and feelings of connectedness with many people whom they cannot reach easily via other means. This can endow them not only with the practical tools to reach out to large groups but also to build a feeling of community, trust, and shared interests (Desmet & Roeser, 2015, p. 217).

2-1. Value driven design (moral value)- emotional approach: Emotions are an important source of moral knowledge, understanding, and awareness. Emotions should play an important role in design for values because we are only emotional about things that touch upon our personal and moral values. Therefore, when designers intend to design intentional artifacts to evoke specific emotions, they should influence the personal values of users through design (Desmet & Roeser, 2015, pp. 203-212). For example, arousing users' emotions to counter «selfish emotions» by considering the value of «environmental preservation» can motivate users to design, buy and use a more sustainable, but slower car (Roeser, 2012, pp. 103-115). Among the emotional artifacts, some objects could influence interaction more actively than others between the user and other humans and lead to the creation of awareness and reflection in the users.These artifacts, which are called «performative artifacts» (POs), communicate with the user through a change within a function as means -deviating from the norm, breaking patterns of perception and preconceptions, and disrupting the experience- towards the social consequences of actions performed with the objects and cause mindfulness. POs can have ethical implications that affect our social values, our interactions and interrelations, and thus, on society as a whole. This mindfulness is created through the interaction of the user with the artifact on two levels: the creation of mindfulness through the interaction of the object with the user or the interaction of the user with other people through the object (Niedderer, 2007).

a. Creating an emotional reaction while using a value driven artifact according to the function of the artifact/type of interaction: human-artifact: one characteristic of emotions is that emotions prepare the organism for certain actions, which are called «action tendencies» (Frijda, 1987, p. 132). Each particular emotion has a distinct action tendency and different emotions lead to different behaviors. For instance, anger leads to attacking, and fear leads to getting away. Because of the links to behaviors, emotions can be used to induce particular behaviors in domains of significant sodal and/or cultural issues. Therefore, a product can lead to actions such as praise or blame in a self-focused emotional experience. In this type of interaction, designers can direct users' attention to their choices and actions and thus indirectly lead to emotional experiences in users. «Poor Little Fish» of «Van Lu» (See

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Figure 2) is an example of such a strategy. The goal of the designer is to reduce water consumption by combining a tap with a fish tank, where the water level drops as one consumes more water. Triggering a moment of confrontation and shifting the focus to one's actions. Although there is not an explicit intention of the designer to evoke self-conscious emotions within the design, the design generates opportunities to take "right" actions concerning the environment (Demir, 2010, pp. 3-71).

Figure 2. «Poor Little Fish» of Van Lu, Source: Desmet & Roeser, 2015, p. 216.

b. Creating an emotional reaction through the functional consequences of the artifact/interaction type: human-artifact-human: Among the examples of performative artifacts that have a pleasant outcome because of their performance, we can mention «social cups» (See Figure 3). In the «Social Cups», the rounded foot causes a disruption (not-standing) (Demir, 2010, p. 72). Instead, the cups each have a little connector that enables them to be connected and thus stand. When at least three cups are connected, they form a stable unit (Niedderer, 2007, p. 3). The social cups were designed to actively explore the social interaction within which they are used, and to make the user aware of this interaction and reflect on it (Demir, 2010, pp. 71-72). Therefore, based on the value of «interaction and solidarity», in the «Social Cups», it is the way in which a disruption of function (in this case the aspect of standing/non-standing) requires the users to interact with each other and it leads people to interact and create a pleasant feeling due to the interactive effect of these artifacts (Niedderer, 2007, pp. 3-4).

Figure 3. «Social Cups», designed by Kristina Niedderer, 1999.
Source: Niedderer, 2007, p. 14.

Figure 4. «La Grolla», a traditional drinking vessel from the north of Italy, Source: Niedderer, 2007, p. 14.

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«La Grolla» (See Figure 4) is a traditional drinking vessel from the north of Italy. It is still in use today, and can be ordered in the local trattoria. "La Grolla" is served with the number of spouts according to the number of diners who pass the vessel around and drink directly from the spouts. The action symbolically links the diners. Therefore, the action seems to be embodied in the vessel's function and its functional arrangement might cause reflection within use and cause participants to question their interaction; thus mediating interaction in a new way (Niedderer, 2007, p. 15). To some extent, designers can influence this communication content (Demir, 2010, pp. 72-73). «Rosella», for instance, presented an innovative product to communicate pleasant messages: the F+R Hugs system (See Figure 5). This is a smart jacket that simulates a hug by recreating the physical pressure of a hug through inflation and deflation of cushions embedded in the shirt. The system can be activated by an SMS coming from a distant loved one (Rosella, 2004, p. 11).

Figure 5. The F+R Hugs smart jacket that creates this feature for users to be hugged by a distant loved one. Source: Rosella, 2004, p. 11.

The bench «Come a little bit closer», (See Figure 6) designed in 2001 by Nina Farkache of Droog Design (Ramakers, 2002, p. 52) is an example identified as a performative object is which emphasizes the consequences of the product in human social interaction (Niedderer, 2007, p. 15-16). Because the seating shells are not fixed, the design allows users physically to move closer without changing seats. This means we can relate the underlying behavioral concept (people keep distance) to specific functional elements of the object (seating shells are not fixed [disruption] but glide on the ball bearings [thematization]) which suggests symbolically a movement of physical presence and as a result, the wish emerges between the strangers to decrease social distance and to engage in conversation. In this way, the bench questions and makes us mindful of our perception and behavior towards other people in public spaces and also offers alternative actions (Niedderer, 2014, p. 353-354).
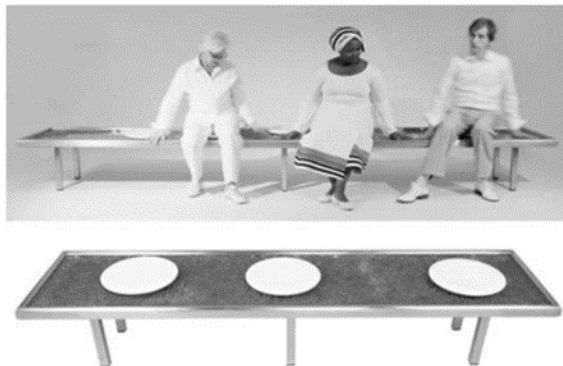

Figure 6. «Come a little bit closer» bench, designed by Nina Farkache, Droog Design Group.
Source: Long, 2018, p. 347.

The aspect of choices encourages us to have a greater sensitivity to the environment and openness to new information, enhancing our awareness toward multiple perspectives of problem solving and also Create new categories for structuring our perception and at the end, adding more choices can be expected to increase reflection and thus Mindfulness (Long, 2018, pp. 224-225). In this arena, we find remarkable approaches such as «Brainball» (See Figure 7), an interactive game for two people which has been developed by the Interactive Institute with the aim of increasing relaxation. «Brainball» comprises a headband with electrodes that reads a player's brain activity using an electroencephalogram (EEG). Two players sit opposite each other at a table, each wearing a headband. In the middle of the table, from one short end to the other, is a clear plastic surface with a small steel ball rolling on top of it. When either of the players presses the «start» button, the ball rolls away from the person who is most relaxed and toward the other player. The only way for the other player to defend is to become more relaxed. When the ball reaches one end, the game is over (Hjelm, 2003, pp. 27-29).
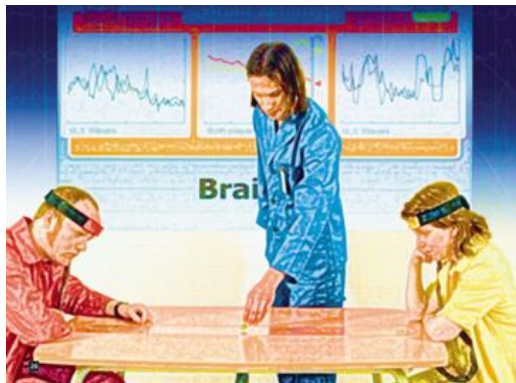

Figure 7. Interactive game "Brainball", designed by the Interactive Institute.
Source: Hjelm, 2003, pp. 26-29.

Therefore, this game turns common expectations and behavior in the most unexpected way «upside down» and the player can only move the ball when more relaxed than his/her counterpart. Questions arise such as «Can we feel relaxed on demand in order to win?» or «Do we lose the aim to win when we are relaxed enough that we might be able to win?» or «Do we even have to give up the wish to win in order to achieve the necessary state of relaxation?» Regarding the object, it questions our outcome-related thinking, and directs it towards process-related thinking. This, in turn, questions the understanding of how one relates to the other participant, because the ordinary belief that more determination is needed to succeed no longer works (Niedderer, 2007, p. 16).

Discussion

Artifacts can explicitly (such as speed bumps) and implicitly (such as an ultrasound imaging) persuade the user to behave in specific ways by using force (such as a speedometer), regularization (by giving feedback on people's actions), seduction and persuasion, and also affect his/her behavior by appealing to the attributes of the viewer and the way he/she perceives. Most persuasive technologies actually perform a hermeneutic form of mediation by shaping experiences and interpretations that inform behavior

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(Verbeek, 2011). In Table 2, the characteristics of mediation of experience and mediation of praxis are described and compared.

Table 2. Investigating the mediation of experience and action by artifact. Source: Verbeek, 2018, p. 29.

Experience	Praxis
Mediation of perception	Mediation of action
Technological intentionality	Script
Transformation of perception	Translation of action
Amplification and Reduction	Invitation and Inhibition
Delegation: deliberate inscription	
Multistability: context-dependence	

Therefore, the design of artifacts is the starting point of an artifact that not merely is instrumental but also leads to the interaction of humans and non-humans in order to benefit from virtue-ethic and co-shape one's moral subjectivity carefully. In fact, technological mediation is the starting point of moral agency. Except in cases of complete domination, where technological mediation makes room for force and compulsion, the mediated character of actions and decisions appears not to obstruct moral agency at all (Verbeek, 2011, pp. 85-89). Based on what has been said in this article so far, I can divide the moral values driven artifacts into two categories: artifacts designed based on economic value and artifacts designed based on moral values. The characteristics of emotional (performative) artifacts, which are a kind of Value driven design (moral value), include:

1. They are designed based on a moral-humanistic value,
2. They are interactive,
3. They evoke an emotional response during or because of the interaction, and guide the users towards a new attitude, action, or awareness.
4. By breaking the norms, it can provoke reflection in the users, and as a result change their behavior.
5. Their Interaction with the user or the consequences of it can prove effective in the moral development of the people in a society.

These artifacts interact with users on two levels:

a. A. Process-oriented :which focuses on the newly developing values in the user while using the artifact - type of interaction: user-artifact.

b. Consequence-oriented: which focuses on the moral values of the consequences of the user's interaction with other humans with the mediation of the artifact - type of interaction: user-artifact-other humans.

According to these categories and the examination of the characteristics of each type of value-driven artifacts, in this part it has been tried to design value driven artifacts and services based on the presented principles.

Concept[4] design based on economic value

The packaging design of «Zahedi date packaging» (See Figure 8) which is visible in the image below, is designed with the aim of «Decent work and Economic growth» in Iran (Zahedan), which can be considered as an example of design based on economic value. The features of this packaging are: using the least amount of material, aesthetic qualities and giving the packaging a unique identity (by using the map of Iran in the visual design of the

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product) for exporting dates to other parts of the world, which can then result in economic growth.

Figure 8. Zahedi date packaging, designers: Maryam Dehghani, Mohammad Reza Eyvazi[5], accepted in the Student Concept section, IF 2021 international competition.
Source: https://ifworlddesignguide.com/entry.

Concept design based on moral-human being value

Based on what was presented, posters entitled «Frame Story» (See Figure 9) which are designed based on «Take urgent action to combat climate change and its impacts» that emphasize Improving education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. In the description of this poster, it is written that «Sometimes conceptual images are used to make people aware of the problems that our world is facing with. But exposing people to actual photos can be more effective and real stories will be seen with no explanation. These posters show a vague and questionnaire form in posters and make the audience to think about the form and also guess about it. After that, they could scan the QR codes at the bottom of the posters to see the original pictures. The difference between the audience's guess of the posters and their original photos is shocking, and this can help make the poster more efficient and even make people think. Also, Frame story posters can be used in different places and even with different themes».

Figure 9. Posters with the title of Frame stories, designers: Maryam Dehghani, Mohammad Reza Eyvazi; Accepted in the Student Concept section, international competition, IF 2021.
 Source: https://ifworlddesignguide.com/entry

By creating emotional arousal, these posters lead users to reflect and think, instilling value and increasing individual awareness of society. Also, «Ding Ding application» (See Figure

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10) by creating interaction between users and other people in order to use their experiences can be considered an example of value-driven design to create capability for global use and reducing inequalities.

Figure 10. Ding Ding application, designers: Maryam Dehghani, Mohammad Reza Eyvazi, accepted in the Student Concept section, IF 2021 international competition.
Source: https://ifworlddesignguide.com/entry.

It is written in the description section of this design «A part of our lives is spent finding answers to questions that can shape our future. Like: Do I really know what field I am choosing? Is this really my favorite field? Can this field be my future job? What are the difficulties of this job?But we are sure about one thing which talking to people with experience in our favorite field can be helpful to find the answer to these questions.But we have access to such persons ?Ding-Ding application is designed as a platform to access such persons. With this platform, different people, especially teenagers, can meet and talk closely with experienced people so they can support their career path .People can also be guests or hosts through the Ding-Ding app and touch their favorite workday closely».

Conclusion
Artifacts, as a part of the material dimension of our lives, mediate between our actions and the way we experience our surroundings, which in turn can directly or indirectly influence our intentions and decisions and shape our moral agency. Therefore, defining the design principles of this type of artifacts can be a big step for designers in order to materialize moral issues as artifacts which can help develop the moral values of the individual and society. Considering this, the research first structured the characteristics of morally driven artifacts by using qualitative data extracted from library sources, and analyzing selected examples that were chosen under the research topic. It was also concluded that moral-driven artifacts should be interactive; since moral values are transmitted to the subjects because of the interaction between the user and the artifact. It was also concluded that artifacts, by evoking the emotions related to the users' values, can encourage the users to reflect and think, and ultimately affect their attitude and lives, during or as a result of their interaction. The next important factor is the performative quality of artifacts; so the artifact must break the norms or typical behavioral patterns of the society, in order to provoke contemplation, reflection and mindfulness in the user by attracting their attention. Therefore, the three important factors (being interactive, emotional and performative) of moral-driven artifacts can cause designing better and more ethical artifacts, and ultimately help build a more ethical society. Finally, the result has been interpreted and designed as value-driven artifacts with an economic, emotional and ethical approach.

Appendix

1. Ecodesign: It refers to a type of designing that considers the lifecycle of the artifact (Verbeek, 2005, P. 220).
2. Sustainable Design: it refers to issue of design which emphasizes on reducing pollution in production, consumption, and waste (Verbeek, 2011, P. 100).
3. International Forum and Red Dot design awards ‹«Annual Design Review (USA)» ‹Observeur du Design.
4. Concept: concepts are people's psychological representations of categories in psychology (Barsalou, Yeh, Luka, Olseth, Mix & Wu, 1999) which is referred to as a conceptual art approach in the design of artifacts. This approach, in the design of artifacts, can be considered as a kind of «social design with the aim of raising awareness», because it is satire and critique; inspiration, highbrow entertainment. It can also concider as a catalyst for change; because Speculating through design by presenting abstract issues as fictional products enables us to explore ethical and social issues within the context of everyday life (Dunne & Flona, 2013).
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