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## Religious Perceptions On Use Of Humanoid for Spiritual Augmentation Of Children With Autism

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### Abstract

In the study of theology relevant to contemporary advances in science and technology, the underpinnings with regards to the religious and spiritual outcomes have to be considered. In the case of humanoids for spiritual augmentation of children with various brain impairments, the religious implications to the children and their families require adequate support prior to the sessions. Hence, this paper provides a review of a monotheistic religion, Islam, that is, the perceptions on the use of robots for spiritual augmentation of special-needs children within the context of the Islamic faith. This is important to teachers and researchers in anticipating better outcomes and in contradicting the debate on psychedelic consequences.

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## 1. Introduction

Religious perceptions on assistive technology has never reached an all-time serious debate as the current use of humanoids for rehabilitating children with various mental disabilities. This problem is particularly emphasized in families of three great monotheism faiths such as Judaism, Christianity and Islam (see Table 1).

Although by definition theology is the study of god, this article's emphasis is on the use of humanoids for religious and spiritual enhancement among brain-impaired children of the Islamic faith. Children with autism, in particular require repeated tasks in teaching and learning. With the staggering increase in the number of autism kids throughout the world <sup>1</sup>, Malaysia too has experienced similar increment in the population of special-needs children <sup>2</sup>. With regards to the robot, the Nao humanoid has been used in many parts of the world for various education classes including communication among kids with special needs <sup>3</sup>. The question on the degree and level of Nao in religious and spiritual activities has posed a difficult decision for stakeholders such as the parents, the guardians, the teachers, the religious groups and the child himself/herself. For Moslems, the idolization factor is forbidden in Islam and this can be misconstrued from the human-like facial features of the humanoid. As such, this is a review paper that focuses on Islamic implications of using the humanoid robot Nao for religious and spiritual enhancement among brain-impaired children.

## 2. Background: Robots and Religion

The speed of evolution in science and technology has significantly impacted the world, particularly so in the 21<sup>st</sup> century. The refinement of robots have attained tremendous advancement to the extent that the field of artificial intelligence has gained much ground in medicine and rehabilitation <sup>4</sup>. However, the advancement in the building of robots and interfacing it with sophisticated systems will continue past the year 2025 <sup>5</sup>. For the current period, robots have been shown to assist with the rehabilitation of the elderly and children <sup>6,7</sup>.

In describing the evolution of robots in Asia, Japan has been the leader for this august technology. As narrated by Mizuta <sup>8</sup>, the first industrial robot began in 1969, much so after the great economic growth in post-war Japan where more robots were developed. Robots were in demand in the car industry where issues on human resource significantly declined because of less people employed in the assembly lines. With amazing advances in programming Mizuta <sup>5</sup> opined that robots have truly come of age as a result of (artificial intelligence) and sensor-information technology. Mizuta <sup>8</sup> forecasted that in the future, more super-intelligent humanoids will co-exist with human beings and cities will be structured as robot-friendly environments.

With positive results shown for that aspect of the people's quality of life, other questions were posed on matters pertaining to religion and spirituality. The conducts of research projects involving one's faith is indeed a sensitive territory to explore. Kale <sup>9</sup> and Foerst <sup>10</sup> have shown another side of the coin with regards to religion and spirituality. The contentions on the monotheistic religion, for example, Christianity were elucidated <sup>10,11</sup>. But the debates on religion relative to robots have also spilled into another monotheistic religions. In order to understand better, the relevant theologies in the monotheism faiths such as Islam, Christianity and Judaism are shown (see Table 1). Monotheism is the belief in the existence of one god, or in the oneness of God <sup>12,13</sup>. However, for this paper, only the religion of Islam will be focused on as the scope of the study and the units of analysis are individuals of the Moslem faith.

## 3. Islam, Science and Technology (Humanoids or Assistive Technology)

In his keynote, Bakar <sup>14</sup> stated that "Islam teaches the virtue of progressive acquisition of new knowledge as the Quran calls upon man to constantly pray to his Lord for increase in knowledge". Such is the intensity of the underlying meaning for Moslems to pursue science and technology in various domains, including in the construction of robots or humanoids. However, in the case of humanoids, the resemblance to a human being, a boy, was a matter

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