

Editorial





How to capture emotional & religious sensitivity for Android Robotics

Abstract

According to UN population statistics, the global childbirth rate has reached less than one per family. Who is going to take care of home-alone-sensors (HAS) in the coming decades? One answer is humanoid android robots! Then, the question remains whether the humanoids can perceive HAS (a) emotions and sensitive to its (b) religious belief. Our paper describes such a possibility! (a) Emotions by Deep Learning; (b) Religious Belief by Pastor Niebuhr Reinhold Serenity Prayer with the triplet: Courage, Serenity & Wisdom happened to match: "If, The or Else" Al logic, as developed by Stanford, John McCarthy, & Bell Lab, Claude Shannon.

Volume 7 Issue I - 2023

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Received: February 22, 2023 | Published: February 24, 2023

Introduction

AI began with the 1st Gen: (1) British Alan Turing (Ph.D. Princeton Mathematics, 1936) who broke Nazi Enigma codes in WWII. He applied the cryptanalysis based on the probability of statistical mechanics of different settings of communications axis to be scrambled before broadcasting them in Morse code. "A computer would deserve to be called intelligent if it could deceive a human into believing that it was human. (2) MIT Marvin Minsky, in his book: "The Society of Mind 1986," formulated a straightforward logic "If A, Then B". (3) Stanford, John McCarthy and Claude Shannon at Bell Lab developed jointly "Automata" and introduced the LISP Computer Language after FORTRAN with the alternative

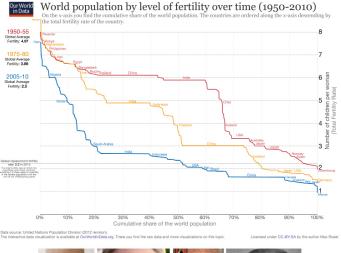




Figure I (A) World Fertility Rate has dropped (Blue Cure) to less than one per family (RHS lower corner)¹

logic: "If A, Then B, or Else C" that choices may appear more intelligent. Moreover, Artificial Neural Networks (ANN) emulated Human Sensory Systems, layer-by-layer "On, the Center; Off, the Surround" (due to a split second time required to replenish firing rate ions resources in Human so-called Deep learning (DL) [Yann LeCun, Yoshua Bengio & Geoffrey Hinton, Nature 521, pp.436–444, 2015] For example, the first layer is filled with broken edges which enter into the second layer where the weak edges are to be removed and the strong edges are to be connected becoming closed objects. Then, those connected objects become their curvature, shapes for recognition. In video, such a computer can capture facial expression, intonation changes, body language to deduce emotion expression.

- (B) Humanoid Sophia Robot has <u>attained citizenship</u> in Saudi Arabia in 2017
- (C) The first Android RT600 named "Chloe <u>passed Turing Test"</u>; (https://www.youtube.com/watch?v=VTodQJJXG0U) except her confession near the end: "missing a soul" (God endowed)
 - (D) Humanoid Robot will help Home Alone Seniors
 - (E) British, Allan Turing
 - (F) MIT. Marvin Minsky
 - (G) Stanford, John McCarthy
 - (H) Bell Lab, Claude Shannon
 - (I) Pastor Niebuhr Reinhold

R/D Shortfall: Families lacking of offspring supports may need emotional and religion-sensitive android robots serving the oldster society. We propose to serve oldster society in coming centuries: (1) we know AI deep learning can capture through facial expressions, voice intonation, and body language interoperated as various type emotions (2) we need furthermore to augment it with the sensitivity to theology appreciation. How To? We propose to adopt Pastor Reinhold Niebuhr (June 21, 1892 – June 1, 1971) teaching. He gave a three-segments, like modern day AI logic: "Father, give us courage (if you have) to change what must be changed, (if you don't, then) serenity to accept what cannot be helped, and (otherwise) wisdom to know one from the other.". The serenity prayer has 6 choices, and all make sense to design user-sensitive android-robots to serve. Pastor has been professor at Union Theological Seminary for more than 30 years, and received the (US) Presidential Medal of Freedom in 1964. "Since the Bible has 783,137 words, authorized by King



James, compared with the Serenity Prayer 28 words, written by Pastor Reinhold Niebuhr, then the Founder, Elijah Kamski the former CEO of CyberLife at Detroit Michigan, who has built (Greek Goddess Demeter epithet) Chloe passed the Turing Test in 2022, will have 4 orders of magnitude difficulty to train a Chloe-like Humanoid. Physiologically speaking, Homo-Sapie e-IQ have been mediated by large chemical hormone signals, and can not be loaded into Humanoids to serve Home-Alone-Seniors with the desirable empathy. All Humanoids can do is virtually by AI Deep Learning."

Acknowledgments

We thank Dean <u>Binh Q. Tran</u> of Marian Univ., Indiana, and Pastor <u>Adolfo Chu</u> of Oneness Christ Church, Taipei, Taiwan, and colleagues <u>Willie & Clare Yang</u>, <u>Mike Yeh</u>, <u>Carrie Sun</u>, <u>Joseph</u>

Niu, Eugene Chang, Jessica Wang, Allen Wang. Dean Tran is the founding dean of the E. S. Witchger School of Engineering at Marian University which recently launched new engineering programs in biomedical, chemical, civil, computer, and mechanical engineering. Oneness Christ church was established on 2007, "I pray for one year to name it. The concept is from the Bible book of John chapter 17, "Father and Son are one, so as Jesus and us are one, therefore Father, Son, Christians are one."

References

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