Use of Computers/Apps and the Negative Effects on Children's Intellectual Outcomes

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Abstract

The accelerated development of computer/Apps has had a negative effect on children's intellectual outcomes. This effort will suggest that the simple nature of this technology can affect critical thinking in children. This effort will provide a brief survey of the Sociology of knowledge, and data on the negative effect on intellectual outcomes of children.

Keywords

Accelerated Develop of Computer/Apps, Declining, Intellectual Outcomes

1. Context and Overview

The average American child spends 40 hours a week staring at a screen, and 5 hours engaged in homework. Eighty percent are using computers and on the Internet by 5 years old. The average age is in fact 3 years old. Imagine for a moment a 5-year-old child seating surfing the internet with her/his personal tablet. Each site the child enters requires an App to gain access. The sole purpose of an App is to simplify the sites program. Hence, from the moment this child gains access to the site he/she is exposed to simplistic concepts. Now, let's fast forward to this same child now at 12 years old. The last seven years this child has been exposed to one after another computer/Apps, hence simplifying this child's world and likely simplifying this child thinking process, I.Q., and identity. According to the App Store in May 2010, there were a total of 5000 apps developed, as of June 2016 there are now 2,000,000 Apps developed (Costello, 2016), indeed, a massive increase in the number of simple concepts affecting children's intellectual outcomes. That is nearly 340,000 new Apps a year having an effect on children's intellectual ability and critical thinking. This effort defines critical thinking and intellectual outcomes as the ability to create concepts, read and interpret argument, employing inductive/deductive reasoning in solving problems,

keeping an open mind, inquisitiveness, flexibility, and the ability to develop a sense of individuality. At this point let us turn to the survey of the Sociology of Knowledge, followed by the core of this study.

2. Survey of Sociology of Knowledge (SOK)

SOK is the study of the relationship between human ideas, and their effects on: a) individuals; b), culture; and d) thought. *Durkheim's* contribution to SOK is based upon the concept of the "Collective Consciences". Durkheim identified two forms: Mechanical Solidarity, and Organic solidarity. Organic solidarity has ties of cooperation between individuals and/or groups, which derive from their occupational interdependence within the division of labor. Mechanical solidarity is analogous to a simple cell organism. Within this solidarity every person is a microcosm of the collective type, and thus has restricted opportunity to develop individuality, (Gerardi, 2010a). *G. H. Mead's* effort to SOK is for his work on the human mind as a social structure created by social interaction. The result is two forms of self "The Me" which is the social sense of self, and the "I" which is the unique sense of self. Through Role-play and games self is realized (Gerardi, 2010b).

Weber's concept of The Principle of Rationality is a major factor in the study of SOK. The Principle of Rationality suggests that the degree to which a society displaces irrational thought with rational thought will create a culture of science and technology (Gerardi, 2014). *Marx's* leading concept in SOK is "Historical Materialism". Historical Materialism incorporates in a capsule the idea that history is not merely an accumulation of accidents or deeds of great men, but the development of humanity through its' labor and productive force or "species-being (Gerardi, 2010a). In my work entitled "The Dialectical Relationship between Religion and the Ideology of Science" it was suggested that Weber's concept of disenchantment can be seen as the degree to which the magical elements of thought are displaced by that of the rational, intellectual and objective articulation of the world. The "mystic experience" to a large extent, progressing to an intellectual, impersonal, calculating image based in rules and scientific laws. Hence, this attitude seeks the "meaning of inner-worldly occurrences" through empirical thought; thus, pushing back religion and the supernatural into the realm of the irrational, reducing human relations to an objective and impersonal stance resulting in: 1) world control through calculation; 2) the need for humanity to understand world occurrences; 3) methodical rules of order; and 4) disenchantment to be understood as the modernization and secularization of religious thought. Moreover, Weber understood disenchantment and secularization of the Calvinist creed of hard work and the accumulation of wealth for the purpose of "good works" acts to eliminate the traditional magical/mystical outer-worldliness philosophy, and replacing this world image with the objective, rational, and empirical stance. Indeed, this stance has metamorphosed into modern capitalism. This original work suggested that the secularization (disenchantment and demystification) of many world religions has created a human

identity which seeks to understand the world through a systemic orderly stance. This orderly stance is a major factor in the culmination of the ideology of science (Gerardi, 2012).

Lastly the focus of this effort toward SOK is *Talcott Parsons*' concept of Functionalism. Functionalism defined is the parts of society (family, education the economy and so on) are structured to maintain social equilibrium. If a part of society is dysfunctional, it is not maintaining social balance. This dysfunctional part creates dysfunctionality in all other parts it is connected. Parsons created a set of analytical tools for interpretation and comparative study of systems known as "pattern variable", commonly referred to as the AGIL scheme. The AGIL scheme consists of adaptation, goal attainment, integration and latency. The *adaptation cell* contains those instrumental actions and capacities toward the means and selection and cognitive symbolization for adaptation and change. Intrinsic to this cell is the concept of homeostasis or harmony and balance within social systems, and most importantly harmonious social change. Parsons argues that the actor as a biological entity is always interacting and adapting to his/her environment. The *goal attainment cell* contains consummatory needs, selection and expressive symbolization for action toward goal attainment. The *I Cell* contains affiliations, the ability for integration based on moral evaluations and responsible action. The *L cell* contains normative commitment to the ideals of balanced social change. The key to Parsons' sociology is the institutionalization and generalization of values, attitudes beliefs and norms. This process occurs in the "I" cell of the AGIL scheme. If this idea was placed into an equation it would look like this: I cell = universality and generalization of values and norms; L cell = inclusion of outgroup, or any new social innovation = change. Therefore, Parsons viewed social change as occurring naturally, through interaction and adaptation to the social environment creating social change (Gerardi, 2010b).

3. Contemporary Productive Force, Thought, and the Relationship to Human Intellectual Identity

Indeed, Parsons Sociological Concept *suggested that* interaction and adaptation to the social environment is the American culture of social change, a positive social process because it leads to social homeostasis. But what if the adaptation process to an innovation has negative effects? This effort will suggest that one such social change has been computer/Apps (due to the effects on critical thing, I.Q., and individuality). Furthermore, this effort will suggest that the systems of the *Mass Culture and Technological Nihilism* act as the as the primary force in the transmission of the need for these simple systems effecting intellectual outcomes. This effort will define the Mass culture (MC) as a communications technique using simplistic messages with little or no higher order symbolic content. Indeed, the MC is mass produced, and therefore culture is a universal mass standardized product. The mass culture communicates simplistic standardized messages, homogenizing the mass audience into a socially/politically passive mass population in which the free human spirit is undermined (Gerardi, 2014).

Computer Apps can be seen as a new form of MC, because Apps' sole function is to simplify tasks. Moreover, Apps are mass produced further placing them in the MC category. Yet another factor in post modern society is "Technological Nihilism" (TN). This original effort defines TN as the intrinsic perception of a free creative individual as being insignificant, without purpose, totality free of human existence founded in technological management (of contemporary humanity). The sociological outcome is the inability to perceive ones' economic, social, and political life. TN degrades the contemporary free human spirit into the logic of rational technological domination losing the ability to think critically (Gerardi, 2014).

4. Technology/Apps' Negative Effect on Intellectual Outcomes: Conclusion

Historically technology has provided the individual freedom of expression, and autonomy. A classic example is Modernism. Modernism was a socially progressive movement which validated free human conscience transformation of nature's raw materials into human creativity. Modernism further required a re-evaluation of material reproduction, philosophy, and all aspects of social life (in the name of social progress). Moreover, technological advancements historically were originally viewed as a force which freed humanity from the toils of repetitive manual labor, hence liberating humanity.

Although technology has set humanity free from such labor, the dialectal twist is that technology (rooted in the ideology of the technological rationality), has restructured itself into a repressive force morphing into a new normal human identity based in social conformity, simplistic behavior and thought. Lynn & Vanhanen (2006) indicated that human Mean IQ will drop by 2050 to 86.32 from 91.64 in 1950. This effort suggests that in large part this score decline is the direct result of computer/Apps usage.

Additionally, Prof. Patricia Greenfield (2009) of UCLA in her work entitled "Is Technology Producing a Decline in Critical Thinking and Analysis" suggested that technology (but also for the purposes of this effort Apps) has negatively affected our skills in critical thinking and analysis. (ScienceDaily, 1/29/09). This effort cites these data to suggest that computer/Apps have had a profound effect on human intellectual outcomes. Furthermore, exposure to the simplifying effects of computer/Apps many also have declining anatomical function on the brain and intellectual outcomes. Dr. Marian Diamond proved that the size of the brain can be changed by providing either enrichment which increases the size of the brain. On the other hand, a lack of enrichment may actually decrease the size of the brain. The enriched brain may suggest an increase in learning ability, and a brain not enriched may suggest a decreased learning curve (Diamond, 1998). Hence, this effort will suggest that computer/apps not only has an effect on I.Q., critical thinking, but also on the learning abilities of children. Computer/Apps, Mass Culture and Technological Nihilism are unavoidable and inescapable in contemporary post-modern society. As was mentioned earlier, the sole purposes

of computer/Apps are to simplify computer operating systems, simplifying the functioning. This effort suggests that computer/apps have a negative effect on children's learning, creativity and critical thinking. You may recall that this effort has defined critical thinking, and intellectual outcomes as the ability to create concepts, read and interpret argument, employing inductive/ deductive reasoning in solving problems, keeping and open mind, inquisitiveness, flexibility, and the ability to develop individuality. According to the National Endowment for the Arts, literary reading declined 10 percentage points from 1982 to 2002 and the rate of decline is accelerating. A drop-off in reading has possibly contributed to a decline in critical thinking. Moreover, the average number of Google searches per day has grown from 9800 in 1998 to over 4.7 trillion today (Lai, 2011). According to Emily R. Lai in her work entitled "Critical Thinking: A Literature Review Research Report "2011, the brain relies on these data to assist in the process of creating critical thinking. Hence, this effort strongly suggests that over exposure to the forces of computer/Apps will untimely lead to: 1) social conformity, 2) loss of individuality, 3) stunted development of critical thinking, and 4) a challenged intellectual outcomes.

Finally, this effort further suggests that computer/Apps are dysfunctional (Parsons) for the negative effect on intellectual outcomes in children, hence negatively effecting balanced social change.

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