Software Engineering And Humanity

Abstract:

Even-tho, software development started in the 19th century they are everywhere. Software are part of human life nowadays. We do communicate, transact, shop and do other activities using software products. Those products have affected human lives mostly in positive ways than negative ways. They make people live much easier by improving way of communication, increasing access of education and learning, advancement of medical care facilities etc. Apart from its positive impact, there are negative aspects of software products: like malicious software that are used for hacking to intrude our private lives and cause security issues. The other main issue is they are making humans less active and idler. Software engineering is not only about technology. It’s also about the human who use them; Therefore, for the future advancement of the software products to bring more positive impact on human’s life, software engineers should think about how the product going to affect people who use them.

Keywords: Software Engineering, Software, Human, Positive, Negative, Impact.

Introduction

Software engineering is a discipline that plays a major role in software development. Software is simply the interface between computer systems and humans who use them.

Nowadays, Software are everywhere and have great significance in our day-to-day lives. We do communicate, transact, shop, and do other activities using the software. Computer-based information systems (software systems) have dramatically influenced our behavior, and the way in which we conduct everyday activity. It is not surprising that the standing of any society in the world is now strongly linked to the level of penetration that software systems have in that society [1]. Whether software has a positive or negative impact on us, it's part of our lives. They are on the computers we use, on tablets, on mobile phones etc.

This paper try to show software evolution and the impact of software engineering and its product on humanity.

Evolution of Software

Alan Turing is credited with being the first person to come up with a theory for software in 1935, which led to the two academic fields of computer science and software engineering. The first generation of software for early stored-program digital computers was written in the late 1940s.

The process by which programs are modified and adapted in a changing environment is referred to as software evolution. Software evolution aims at implementing the possible major changes in the system and ensuring its reliability and flexibility.

The successful evolution of software is becoming increasingly critical since the increasing

dependence of computers and software at all levels of society. A Regular update of software along with its modernization is very important more so when several organizations invest heavily in their software systems as they consider them to be critical resources for their business. The ubiquity of computers and hence of software in virtually all aspects of human activity has resulted in society becoming ever more software dependent. The software has become vital and universal [7].

The Impact of Software Engineering on Humanity

Software engineering and its product impacts are undeniable on human being's Humanity. First technologies were build to simplify human physical work. In these days, technologies are developing to simplify people's work by doing most the thinking part. And humanity is the quality that makes us human. One key quality is thinking. And they are making us inactive and idle. But the impact is more positive than negative, Especially if we use them carefully and mindfully. The software helps make life convenient by making life so much easier [2]. One great thing about software is they can do what humans can 't do. Humans are naturally inefficient. The software can be used for the good of human's life like business, medical care and soon or they can be used for the harm of human's life like for terrorist activities, identity theft and other harmful activities to the society.

The Positive Impact of Software Engineering

Software engineering products can gives us a lot of information on one click and they are used for education, medical care, business and soon. The software makes the learning processes easier by creating an e-learning platform and online course. Also, students can carry their all course books and notebooks in a tablet or laptop [3]. Software is playing an increasingly important role in health care, taking over evermore-critical functions with the goal of increasing the quality of care to patients/populations at reduced cost [4]. Software engineering products have huge use for people with special needs. For example, screen reader software such as JAWS is often used by blind individuals [5]. The positive impact of software Engineering products so much to cover in these few pages.

The Negative Impact of Software Engineering

Apart from it's a positive impact, there are negative aspect of software like software that are maliciously used for hacking to steal our data which can be viruses or malware. They can intrude to our lives and can cause privacy issues. One big negative impact of software are making people to do less work and makes them idle. Being inactive and use those software products for long time can cause health-related issues [3]. We can improve the usage of software and limit the negative impacts.

Minimizing the Negative Impacts of Software Products

To minimize the negative impact of software products, software engineers should try to figure out how to use software engineering to help others. The aim should be to come up with a project, or a product that could help humans and makes life easier by designing a real product for real human problems. Since thinking is the essence of a human being, everything begins

with a thought, so if we can improve our thought we can improve the products. And the effectiveness and the efficiency the software engineering products should be for the betterment and for the good of life. Software engineers need to develop products to avoid unintended negative impacts on society, people, and the environment. It should become routine for software engineers to look for the human values inherent in technical decisions. Think early often about the people your systems affect [6].

Concision

Every technology has its own benefits and side effects. Generally speaking, software products are successful on making humans life easier. As humans are inefficient, They help people to improve productivity, For their negative impact we can set limits of using them and minimize the negative impact,

On the future software engineering products will be solutions for many challenges in human's life. In the future, the software may even be part of our bodies!, Since wearable technology and implanted medical devices are just beginning. The possibility of software replacing humans' is very likely on the future.

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