

Analog Concepts in the Digital Arena

Disclaimer: All information in this article is Copyright © 2018 Customer First Computing and can be used by customers of Customer First Computing. However, the information provided is not to be used, abused or transferred in any means without the express written consent of Customer First Computing.

Introduction

It has always been my sincerest desire in any of my teaching endeavors to be able to explain things in such a manner that is – first and foremost, understandable. With regards to computers and computing, I have absolutely no interest in "geek talk". Rather, I would prefer to discuss computers and computing in more "human" terms.

Computers are initially conceived in the minds of people and as such, function as people do! Approaching computers from this perspective has led to devising the following two terms "analog" and "digital". By analog, I am simply referring to things that make up the real world in which we live. Things such as vinyl records and cassette tapes, photo albums and 35mm snapshots, paper, pens and pencils, books and magazines, and lastly, VHS tapes. These are the things that we can touch and that have real substance to them. This is the meaning behind the use of the term analog.

Digital, on the other hand, is taking these analog things and coming up with a non-analog imitation. This is what we refer to as "digital". For example, vinyl records and cassette tapes now become MP3's. MP3 then, is the digital counter-part to the analog vinyl record, cassette tape, and CD. The 35mm snapshots now become JPG - pronounced "j-peg". The paper, pens and pencils, books and magazines now become txt, doc, or pdf's. And finally, VHS tapes and DVDs now become mpg, mp4 and avi. Each digital *thing* must have an analog equivalent for this digital *thing* to be valid. This is the meaning behind the use of the term digital.

Understanding the meanings of the terms analog and digital has led me to the development of a principle, "*analog concepts in the digital arena*". What this principle is stating is that "each thing that I do with a computer must first have an analog equivalent in order for that digital equivalent to be functional". Without the analog equivalent – digital becomes completely irrelevant. Also if I do not understand the analog *thing*, I will – more-than-likely, not be able to understand the digital *thing* either. I hope that this all makes sense.

Once we understand "analog concepts in the digital arena" we can expand on this principle. In the analog world there are four things that we could interact with in one form or other: music, pictures, written materials, and movies. I refer to these four items as audio, images, text and video. Each of these four categories can be further expanded on. Important to remember – these four things each have a digital equivalent.

Once we grasp the idea of analog and digital, we need to understand *that computers can only deal with the digital side of things*. There is no analog aspect to a computer – other than the physical hardware itself, but this is not what we are referring to here.

I hope to take the "fear of the unknown" out of computing, that is, the way in which we use a computer. We must see that if we do not understand how an analog object functions, we should not expect to understand how the digital one functions either.

Take a columnar book for example. A columnar book is something that a bookkeeper would use to record numbers – with these numbers generally involving money. The digital equivalent to a columnar book would be a *spreadsheet application*. Someone who is familiar with using a columnar book – the analog thing, should have no real difficulty in using a spreadsheet application – the digital thing. The

point here is that you should not expect the digital equivalent to be any easier to understand and therefore, use. This is an underlying problem with many who use computers – the *seeming* expectation that a computer can assist me in doing something previously unknown or unattainable. Though computers can simplify many of the aspects of the analog world – often referred to as being "user friendly", *a computer must still be told what to do*. And the better we are at telling the computer what to do, the better the computer will respond to that dialogue.

- Note: Thus the meaning of the acronym "GIGO", or "Garbage In – Garbage Out". Also, the term "application" refers to something provided by a computer that permits you to *apply* yourself to a particular task – in this case, a word processor that permits you to write a letter.

One example of "analog concepts in the digital arena" is the writing of a letter. In the analog world, you would obtain a piece of paper and a pen and begin to write your letter. The digital equivalent to our paper and pen is what would be referred to as a "word processor". Using a word processing application then, you can, using the keyboard as your pen, type your letter. This letter is the digital equivalent to the analog paper and pen.

One final example, a Web cam. A couple of things, a Web cam is really no different than a "digital camera" or the camera that is found on a cell phone. The reason I chose a Web cam is that it is often associated with the use of a computer. Just remember that the use of a Web cam can be applied to the use of a digital camera. Using your Web cam then, you can take a picture of yourself. This digital image of yourself is then stored on your computer. In a real sense, the Web cam has in effect, "written" a picture of you.

- Note: Interestingly with pictures or images, we used to use a term called "digitizing" which simply meant "to change to digital form". The term most commonly used today for such an image is the term "selfie".

Though the way in which we take "digital images" has been greatly simplified and therefore improved – "red-eye reduction" and "image stabilization" for example, these improvements will never make you or me a photographer. Why? No matter how smart we think a computer is, a computer cannot and will never be "sentient" – that is, "capable of sensing or feeling". In fact, if you think about it, one of the things that makes us "human" is our ability to make mistakes and hopefully, to learn from them. A computer on the other hand, is designed at the outset not to make mistakes – even though the term "learning computer" does get bantered about a bit.

Musically speaking, though computers have made various musical endeavors practical – such as in the development of digital music scores, computers have also made it possible for people who really cannot sing *sound as if they can*. Once such application is "pitch correction software" and which really does not have an analog equivalent. If understood in its proper context, the analog equivalent of pitch correction software would be in the ability of an accomplished singer to change the key of a song "on the fly" – and which would take a high degree of skill to perform properly. On the digital side however, a pitch-correction application, can, as stated by the developer, "be used to make your voice sound better than usual." However, when listening to such *singing*, there is something that is most definitely wanting. And the list of such "audio altering applications" is quite staggering.

Review Time

Analog: Things that make up the real world in which we live.

Digital: Taking an analog thing and coming up with a non-analog imitation of that thing.

"Analog concepts in the digital arena": The principle where each thing that a computer does must first have an analog equivalent in order for that digital equivalent to be functional.

The four categories: Audio, Images, Text and Video.

A computer must be told what it is to do.

If I do not understand the analog *thing*, do not expect to be able to understand the digital *thing* either. You should not expect the digital equivalent to be any easier to understand and therefore, use than the analog counter-part.

In closing...

I hope that the above information has been helpful to you and that this information makes sense – and more importantly, *that this information makes sense to you?* At Customer First Computing and at Sentinel Musical Studios, I look forward to being of service to you.

Thank you for your time.

Sincerely,
Dell

"A teacher takes a hand, opens a mind, and touches a heart."

Copyright © 2019, Dell Krauchi and Customer First Computing