# Larry Tesler, Pioneer in Making Computers User-Friendly, Dies at 74

*The Wired Word* **for the Week of March 1, 2020**

**In the News**

If you use a computer, it's likely you use the cut-and-paste and copy-and-paste commands frequently -- commands that simplify many digital operations. But it's also likely that you haven't known whom to thank for them.

But now we do. After Larry Tesler died on February 16 at age 74, obituaries and other articles about him credited him for inventing and naming those commands.

Tesler, who over his career worked for pioneering tech companies, including Xerox PARC, Apple, Amazon and Yahoo, was committed to making computers "user-friendly" (in fact, he coined that term), practical and affordable.

*Fast Company* described Tesler as "part of the golden age of research at Xerox PARC, which bit by bit, transformed the computer from a black box mainframe programmed by esoteric codes into a device that anyone could quickly learn through their own intuition."

Tesler also helped develop the term "WYSIWYG" (pronounced WIS-ee-wig) for "what you see is what you get," and the process behind it that enabled computer printouts to be exact duplicates of what's seen on a screen.

At PARC during the 1970s, Tesler worked on the Gypsy word processor, an invention that has had long-term impact for everyday users. With Gypsy, Tesler did away with the restrictive modes that had made text editing complicated, and in other ways, he sought to make computers simpler and more intuitive for consumers.

In that regard, Tesler was noted for often bypassing computer experts and instead asking ordinary users what they wanted their machines to do, and then working to make computers do those things.

Gypsy, thanks to Tesler, included that ability to open a computer file by simply clicking on a screen icon while pointing at it with the mouse cursor. Before that, files had to be opened by typing the file name into a command line.

He also devised what became known as Tesler's Law, a tenet holding that, in any computing system or application, there is a level of technical complexity that cannot be removed, and so someone -- either the product developer or the user -- must deal with the complexity. Tesler argued that, in most cases, an engineer should spend an extra week reducing the complexity of an application versus making millions of users spend an extra minute each using the program because of the extra complexity.

Tesler was not as well known as computing giants such as Bill Gates or Steve Jobs. But he played a central role in making computers accessible to people without computer engineering degrees, which, of course, includes most of us.

More on this story can be found at these links:

Lawrence Tesler, Who Made Personal Computing Easier, Dies at 74. *The New York Times*
Larry Tesler, Inventor of Copy-and-Paste Computer Functions, Dies at 74. *The Washington Post*
A Tribute to Larry Tesler, the Father of User-Friendly Design. *FastCompany*

**Applying the News Story**

While we have Larry Tesler to thank for many of the helpful processes we now perform easily on personal computers, his "Tesler's Law" regarding complexity has a connection to the life of faith. In his book *Mere Christianity*, the great Christian writer C.S. Lewis said:

It is no good asking for a simple religion. After all, real things are not simple. They look simple, but they are not. … A child saying a child's prayer looks simple. ... [But] if you want to go on and ask what is really happening, then you must be prepared for something difficult. If we ask for something more than simplicity, it is silly then to complain that the "something more" is not simple.

… [Some critics] put up a version of Christianity suitable for a child of six and make that the object of their attack. When you try to explain the Christian doctrine as it is really held by an instructed adult, they then complain that you are making their heads turn round and that it is all too complicated and that if there really were a God they are sure He would have made "religion" simple, because simplicity is so beautiful, etc. … Notice, too, their idea of God "making religion simple": as if "religion" were something God invented, and not His statement to us of certain quite unalterable facts about His own nature.

Besides being complicated, reality, in my experience, is usually odd. It is not neat, not obvious, not what you expect. … That is one of the reasons I believe Christianity. It is a religion you could not have guessed. If it offered us just the kind of universe we had always expected, I should feel we were making it up. But, in fact, it is not the sort of thing anyone would have made up. It has just that [strange] twist about it that real things have. So let us leave behind all these ... over-simple answers. The problem is not simple and the answer is not going to be simple either. (From Lewis' chapter titled "The Invasion")

Tesler was well aware of the complexity of computer processes. The law attributed to him declared that in any computing system or application, there is a level of technical complexity that cannot be removed. And many Christian believers, including Lewis, say the same about the Christian faith.

Rather than deny complexity, Tesler argued that the complexity should be dealt with by the computer engineer rather than the computer user. So should the complexity of Christianity be dealt with by theologians and other religious thinkers so that what's presented to the people in the pews and those we seek to evangelize is something simple?

The problem with making something complex simple is that it can deny the user what's needed to deal with problems in the real world. In the development of computer applications, discussions about how simple a feature should be are usually derived from the following question: "Should we take some control from the user in order to make the experience simpler or give him control of the situation at the price of increasing complexity?" (This from Simplicity is Overrated)

In Christianity, that might translate to something like "Should we de-emphasize the complexity of faith in order to make religious experience simpler, or give people more tools to deal with real life at the price of increasing the awareness of Christianity's complexity?"

So the complexity of Christianity is the topic of this lesson.

**The Big Questions**

1. In your experience of Christianity, what seemed simple at first but later proved to be complex? What seemed complex at first but later proved to be simple?

2. What complex thing is happening when a child is saying a child's prayer?

3. What simple thing is happening when you are praying? What complex thing is happening when you are praying?

4. In what ways does simplicity serve as an entry point for the gospel? In what ways does complexity do so?

5. Should we de-emphasize the complexity of faith in order to make religious experience simpler, or give people more tools to deal with real life at the price of increasing the awareness of Christianity's complexity?

**Confronting the News With Scripture and Hope**
Here are some Bible verses to guide your discussion:

**2 Corinthians 11:3 (21st Century KJV)**
*But I fear lest by any means, as the serpent beguiled Eve through his subtlety, so your minds should be corrupted from the simplicity that is in Christ.* (For context, read 11:1-6.)

This verse speaks of the "simplicity that is in Christ," but the Greek rendered in English as "simplicity" both in the 1611 King James Version and its 21st-century successor quoted above, is *haplotēs*, which has, as its first meaning, "sincerity." Most modern versions translate *haplotēs* with words like "sincere and pure" or "single-hearted devotion."

Thus, while "simplicity" is one meaning of *haplotēs*, it may not be the one Paul intended when writing to the Corinthian church. But even if it is, the verse gives us a chance to think about the meaning of simplicity.

We may say "I simply believe," but simple faith that has power in our lives is usually a faith that has wrestled with life's complexity and survived. There's a quote attributed to Oliver Wendell Holmes, a justice of the Supreme Court in the early 20th century: "I wouldn't give a fig for the kind of simplicity which exists on this side of complexity, but I would give the whole world for the simplicity that exists on the other side of complexity." We suspect that's exactly right.

In apparent agreement, theologian Karl Barth wrote, "The simplicity which precedes from the apprehension of God in the Bible and elsewhere, the simplicity with which God himself speaks, stands not at the beginning of our journey, but at its end." Barth also said, "The absolutized idea of simplicity itself belongs to the complexity from which man must be delivered."

**Questions:** Why do you think Oliver Wendell Holmes came to the conclusion he did about simplicity? Regarding the Christian faith, what might it mean to *absolutize* simplicity? What might be the value of doing so? What might be the problem with doing so?
**Psalm 119:130**
*The unfolding of your words gives light; it imparts understanding to the simple.* (No context needed.)

**Luke 18:17**
*Truly I tell you, whoever does not receive the kingdom of God as a little child will never enter it.* (For context, read 18:15-17.)

There's value in reading these verses from the two testaments together. In biblical times, "the simple" often referred to 1) a person with a mental handicap or 2) a child. Psalm 119, the whole of which is about the help and power of God's Torah (God's Law), here asserts that God's word gives light (understanding) even to the simple. While someone with a mental impairment or someone still too young to grasp the intricacies of God's Law might not be able to meditate deeply on the Torah, it still is a source of light for such persons.

What's more, as Jesus suggests in the Luke verse, there's a quality of simplicity that provides an entry point for the kingdom of God into one's life, even the life of one to whom the "simple" label would not apply.

**Questions:** What age child would you prefer to look after? Why? When does "childlike" become "childish"?

**Isaiah 55:8-9**
*For my thoughts are not your thoughts, nor are your ways my ways, says the LORD. For as the heavens are higher than the earth, so are my ways higher than your ways and my thoughts than your thoughts.* (For context, read 55:6-9.)

**1 Corinthians 3:19; 4:1**
*For the wisdom of this world is foolishness with God. ... Think of us in this way, as servants of Christ and stewards of God's mysteries.* (For context, read 3:19--4:2.)

In Isaiah 55, God, speaking through the prophet, told the people that he was so different from them that there was no comparing the thoughts and ways of humankind with God's thoughts and ways. God was not merely saying that he is more complex than humankind, but that he is entirely other than humankind. Thus, fully comprehending God is not a matter of more complex thinking on the part of human beings, but a matter of receiving what God chooses to reveal of himself.

In effect, Paul says the same thing in his first letter to the Corinthians: "For the wisdom of this world is foolishness with God." But he went on to describe himself and his fellow missionaries as both "servants of Christ and stewards of God's mysteries." We understand the servants-of-Christ part, and as Christians, many of us strive to be that as well. But what does it mean to be stewards of God's mysteries? In 4:2, Paul says that it means being "trustworthy," but perhaps it also suggests doing some deep thinking about God's call and passing what they come to understand from that to others.

**Questions:** In what ways, if any, do you strive to be Christ's servant? In what ways, if any, do you consider yourself a steward of God's mysteries? What is the value of abiding in the mystery of faith?

**Proverbs 25:2**
*It is the glory of God to conceal things, but the glory of kings is to search things out.* (No context needed.)

Speaking of complexity, this verse suggests that the more we search into the mysteries of nature, the more we discover depths of which we had no idea before. We can't measure ourselves by our

Maker but may recognize in the complexities of creation our own insignificance and God's mastery.

Science tells us that only about 5 percent of the cosmos is observable, meaning that it can be measured or sensed in some way. So 95 percent of it is made up of dark energy and dark matter. If we somehow succeed in simplifying 5 percent of the universe, we've got a lot of simplification work left to do and, in doing it, we lose the sense of complexity we should have.

**Questions:** When have wonders found by science caused you to question your belief in God? When have such wonders deepened your faith in God?