

# CHAPTER 1 CULTURE & ELECTRONIC MUSIC TOOLS SINCE INCEPTION



## HOW TECHNOLOGY ASSISTS IN MAKING MUSIC.

- History, Future & Impact of music technology on culture

*One machine can do the work of fifty ordinary men. No machine can do the work of one extraordinary man. ~Elbert Hubbard, The Roycroft Dictionary and Book of Epigrams, 1923*

The above quote is apparently clear, as technology has changed the way media is both produced and consumed. Machines (software and hardware) have replaced orchestras, musicians and have reduced the multi-person roles of producer, engineer, arranger, composer, and artist into one singular role.

## MIDI AND COMPUTER TECHNOLOGY IN MUSIC PRODUCTION

*Technology presumes there's just one right way to do things and there never is. ~Robert M. Pirsig*

Humans have many patterns for gathering and reconstructing information, yet technology such as word processors and Digital Audio Workstations (DAW) are linear in their approach while their interface is currently inflexible in its ability to learn human interaction. Technology currently has no advanced ability to adapt to a specific user, hence the quote above. There is a separation between those that create technology and those that use technology.

Music Technology is a means to a musical end, not the focus. Technology needs to be treated as a tool:

Finding an intuitive interface for technology that allows the user to work seamlessly with technology as a natural extension of their workflow has always been a challenge.

The basic principles of this chapter are designed to explore the following questions:

*How has **technology** changed the way music is produced and consumed?*

*How has the **interface** used changed the way music is produced and consumed?*

## INTRODUCTION:

Today we live in the world of the Digital Audio Workstation (DAW). Computers, including laptops, are powerful enough to replace almost every piece of audio equipment in a traditional studio with the exception of microphones, but even this may just be a matter of time. **Record production has evolved from capturing a performance to perfecting a performance** to the studio being an instrument to the point where a studio is simply a computer program or, more recently, an app. Recording artists of the past needed the financial backing of a record label to make a record. The typical budget for a debut album release in the 1980's and 1990's for a major label signed artist was about \$250,000. Today it seems like \$25,000 is a generous budget. I have produced full albums that have received national radio play that had budgets under \$10,000. This is the **new music economy**, one of access to technology and access to distribution.

There are a few contributing factors that have brought us to this point. They include:

- Manufacturing and trade practices (China) that reduce the price of technology.
- The internet giving consumers unlimited music choice
- Peer-to-peer file sharing of both music software and content (mp3s)
- The deregulation of American radio (ClearChannel) homogenizing new music programming
- Payola and the stop of independent radio promotion
- The iPod, iPad, iPhone, Smart Phones
- Microprocessor development
- Refusal to change from labels (suing customers), musician unions, digital rights management, poor copyright laws and more