

Abstract of "What Bit Rate?" by John Watkinson

The focus of this article strikes close to my heart: that of the basic (and seemingly age-old) dispute between the perceived sound quality difference between digital and analog audio. Specifically, John Watkinson is addressing that not-so-small group of people who protest to hearing things, beyond the defects in the analog medium, that are lost or missing from their digital counterparts. To defend the theory of digital recording, Watkinson cites the similar restrictions which bind both the digital and analog domain. For example, while bandwidth and sampling rates are finitely limited in digital recording, the nature of analog imposes its own limitations on these parameters. Similarly, the signal-to-noise ratio for both digital and analog relies on the fundamental particle-based quality of the recording medium. Finally, as far as resolution and linearity are concerned, digital audio has a theoretically infinite potential. As a possible reason for poor quality sound in contemporary digital audio systems, Watkinson therefore points not to the theory of digital audio itself but to the pedantic implementation of this theory in today's equipment. The fact that modern convertors, including some expensive models, are affected by the quality of the input data cable is an obvious sign that manufacturers are not building digital machines up to their necessary specifications and thus limiting digital sound quality not by design but by practice. In conclusion, the re-evaluation of digital recording's power of audio reproduction should only be made once these powers have been fully brought to bear.