ACOUSTICS2008/1996 Factoring end-user expectations into the sound design process of computer keyboards

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The poor acoustic comfort of usual commercial products is often perceived as annoying. Today, more and more companies have realized that sound can be an important component of product attributes and image. They are interested in having acoustic guidelines for enhancing their products sound quality. The objective of this research is to quantify the objective and subjective noise production of computer keyboards, and hence to translate the pleasantness in an objective way. Our strategy consists in developing both benchmarks and listening tests to ensure that sound design process never looses sight of the end-users expectations. The presented work proposes an original methodology to define what keystroke sound matches the image of a pleasant keyboard. We also approach what acoustic characteristics have a significant influence on the global appreciation of keystroke sounds. Good results have been obtained showing a strong correlation between perceptive cues and metrics.