Effective sound masking for speech privacy in open plan offices

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For over 30 years acousticians have studied, measured and evaluated open plan offices to improve speech privacy and freedom from distraction. This paper addresses the relative importance of the many factors affecting speech privacy in open plan offices.

Adjusting the background noise level at the receiver has proven to be a very powerful and relatively inexpensive method to optimize the acoustical environment in open plan offices. However, sound masking systems are not always properly tuned to achieve the maximum benefit. In this paper, the importance of the shape, smoothness and level of the masking sound spectrum are discussed and demonstrated with case studies.

Recent legislation in the U.S., such as the Healthcare Insurance Portability and Accountability Act of 1996, also known as HIPAA, has broadened speech privacy concerns from open plan to closed plan. Sound masking is an attractive option for both configurations. Differences in sound masking design and tuning between open plan and closed plan are explored in this paper.