



Making a noise

Description

There's a sense of quiet after a snow fall, which brings to mind the importance of noise in everyday life. We think of noise as random and unattributable sounds. More technically, and as developed by mathematician and information theorist Claude Shannon, noise is any unstructured or random signal. Noisy signals are those with high entropy. Like the molecules of a heated liquid, or a gas, noise contains a lot of energy and random movement.



Shannon identifies noise with distortion and the introduction of errors, but he also indicates that noise introduces ambiguity into a signal, which he calls "equivocation": "the average ambiguity of the received signal" (p.20). A noisy signal is not only full of errors, but it contains **a multiplicity of signals**.

Shannon wasn't concerned with the *meanings* of messages, but his theory suggests that when a signal is noisy it's not that we can't read enough from the signal, but there are too many signals. Think of a mistuned radio, or a poor telephone signal. It is not only that we can't hear what is being said, but that we hear too much.

We don't only hear about to rain, but also on the train, also under strain, and other variations. The listener eventually gets the message thanks to strategies of repetition and the human capacity to derive meaning from context. In fact, in so far as we think of communication as the passage of a signal through a conduit, it invariably involves a multiplicity of filters that eventually transform the noise into something intelligible.

So noise is a highly productive phenomenon, enabling in various ways, a property of ambiguity and of language in general. We gain great utility from language because it is ambiguous, not in spite of ambiguity. We can make use of language because words don't have precise and fixed meanings. Words slip and slide, affecting each other with colour and nuance.

If this is so of language then we can celebrate something similar in other areas of creation, such as designing buildings, making websites, and (I assume) composing music.

The economist Jacques Attali's polemical book *Noise: The Political Economy of Music* advances provocation along these lines: work noise, noise of man, and noise of beast. Noise bought, sold or prohibited. Nothing essential happens in the absence of noise (p.3).

References

- Attali, Jacques. 1985. *Noise: The Political Economy of Music*. Minneapolis: University of Minnesota Press.
- Shannon, Claude E. 1948. A mathematical theory of communication. *The Bell System Technical Journal*, (27)379-423, 623-656.

Category

1. Voice and text

Tags

1. Attali
2. music
3. noise
4. sound

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Author

rcoyne99