

[Shannon, Turing, and switches](#)

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Hello all -- I have a semi-formed question about the origins of digital information in the works of Shannon and Turing, vis-a-vis their respective technological milieux (on opposite sides of the Anglo-Atlantic). Specifically, I am wondering about their relationship to light switches.

Shannon, I assume, in 40s America, was working in the age of what we might call Classic Switch. I mean the simple, sturdy, wall-mounted switch, with a pale ceramic face plate, and a dark plastic toggle flicking up and down, with a little bit of resistance in the middle, which the user overcame to attain ON or OFF. Obviously what I am thinking is that the aggressively binary operation of this kind of switch may be relevant to Shannon's standardization of the binary digit as the unit of information.

What about Turing, working in 30s Britain? I seem to remember that, propaedeutic to his theoretical projection of the Turing Machine, he gives a brief, slightly anxious, very English, very ordinary-language workup of the point that no switch is truly binary, but that a simple notion of the latter "is good enough to be going on with" (or words to that effect).

So, my question: With what kind of light switch, for electric light, would Turing have been familiar, in his daily life? Or would he, for that matter, still have regularly been using versions of gas light, with some kind of analog dimmer?

Grateful for any reply

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