

find that we're moving from 240V 50Hz to something else and I have to rewire the house. If that constant operational improvement in electricity generation was not abstracted then all the consumer electronics built upon this would need to continuously change — the entire system would either collapse in a mess or at the very least technological progress would be hampered. It's no different again with biology. If there weren't underlying components from DNA to RNA messaging to transcription to translation to even basic cell structures within more complex organisms, then you and I would never have appeared in the time frame.

Now as a component evolves to a more standard, good enough commodity then to a consumer any improvement becomes increasingly hidden behind the interface. Any changes are ultimately reflected as more efficiency or a better price or quality of service but the activity itself for all sense of purpose will remain as is e.g. a standard but cheaper brick or power supply or wooden plank. There are exceptions to this but it usually involves significant upheaval due to all the higher order systems that need to change and hence Government involvement is often required e.g. changing electricity standards, changing currency or even simply switching from analogue to digital transmission of TV.

Hence, activities evolve to become more industrialised and those commodities (or utilities) enable higher order systems that consume them and any operational improvement to the component is increasingly hidden behind its interface. Change can happen but it's costly and ultimately we aim to reduce all forms of deviation.