Living organisms are involved in (re)production, but they are not tooling. For the purposes of my definition, tooling does not include enclosed systems (universal sets of all the tools involved in production). A factory may be identified by a collection of tooling, but the factory itself is not tooling. A blacksmith may forge a new hammer using an old hammer (which is tooling) but the act of production requires human intervention. A machine lathe may be capable of producing a new machine lathe, but it requires an operator. A piece of software may self-replicate, but it requires a computational substrate to run on. Tools are not complete systems, they are components of systems, identifiable by their *incomplete* nature.

Conditions for tooling:

* T is *necessary* for the production of X. –While a stool might aid in the production of a turned component, it is not necessary. The lathe and the cutter are necessary.