Software undead: a bestiary of software that somehow manages to stay alive

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The biggest software sustainability challenge is not what or how to sustain software that everyone agrees is important. It is instead to understand when software should be "sunsetted", i.e. when life support should be turned off. However given how hard it can be to kill off some of these projects, I figured that actually we have to recognise when a software project has joined the ranks of the undead, and come up with good ways of getting rid of them!

- Vampires: they suck the lifeblood out of other projects around them, draining them of resources. Vampire software projects are typically successful (vampires are very eloquent), they just make everything else around them suffer. Typically come about when a group has created a successful piece of research software, but the resources needed to feed it have grown out of hand, leading to sacrifices. You need to decide whether to kill it to save your village (team), or just restrict its activities with judicious use of garlic and feature roadmaps.

- Zombies: they continue making slow, shambling progress, but they have no life to them and never will. Instead they feed on people's brains. Typically the result of a good initial grant proposal which didn't go anywhere but for whatever reason they were resurrected by another injection of resources when they should have been left in peace. Can be killed by decapitating using a more honest end of funding review.

- Ghosts: these are pale apparitions of the software projects that they might have been. Often caused by a lack of resources, i.e. the PI pulled their best postdoc / RSE off the project to work on something more urgent / interesting. They often started with a good idea, so it might be possible to bring them to life with more resources, but this might turn them into a different undead.

- Revenant/Draugr: these are a type of project where the software ideas of a particular person come back to haunt the - normally junior - developer working on them, driven by jealousy or greed stemming from a longing for the things of life which it once had (time to write code). The classic revenant is when a professor asks their student to take a look at a piece of code they themselves wrote, but are so protective of the code that it's impossible to make progress on them. The only way to dispel a revenant is for our hero to stand up to them and force them through the corpse-door (normally into a committee) and ensuring it's shut to seal them out.

- Frankenstein's Monster: normally, reuse is good for research software. Not this time. To get ahead, you cobbled together various bits of old code that you'd dug up, some of which had been sitting around for a bit, some of which doesn't quite fit. At first it seems to do what you want it to do, but it quickly goes out of control and wreaks havoc on your research because you're unable to understand why it's doing the things it does. Best to just lay this particular creation to rest, and start again.

- Banshee: the banshee project laments for what is to come, often a harbinger of death. Here the project leader is so haunted by the failure to keep alive previous loved ones (software), that they believe this project to be doomed too, condemning the software project. Not much you can do about that.

- Lich: the lich is brought to life by a powerful incantation or spell. Their bodies are particularly cadaverous or skeletal, because it's essentially the sheer power of the necromancer controlling them that makes them alive. Pretty much every blockchain project falls into this category just now. The good news is that when the power (money) that keeps the incantation going stops, so does the lich.

- Ghoul: the ghoul software feasts on the corpses of other projects. This is a particularly nefarious piece of software because it has managed to outlive so many others. The skill of the ghoul is that it is greedy, and manages to steal resources or even kill children. You see this with software that has been created in an area which previously has had a lot of funding, but now most of the other projects have died. Not sure how you stop this undead.

Any other undead research software project categories for the bestiary? Or ways to kill them?