Resetting a career is daunting and the first lesson is not to rush

Anyone considering change should prepare well and accept they will face a time of limbo

Pilots don't restart fighter jets very often, but when there's absolutely no alternative, the methods they use to make it work are instructive for the rest of us © Matt Cardy/Getty

David Bodanis   Wednesday, July 22

Everyone's talking about how to reset society and careers after the coronavirus, but what takes place when people use actual reset buttons?

For pilots it can be terrifying. One Royal Air Force friend described being in his fighter, over a hostile country at night, when something started going wrong with his electrical systems. One fix after another didn't work, so the only thing left was a sudden restart.

In this case there's no actual button for it — that's reserved for armaments or seat ejection — but he carried it out through a quick sequence of finger-swiped instructions. There was a final flicker on the screens.

And then darkness.

It was scary, and lonely, but finally all the screens lit back up: whatever had tangled up their workings was now smoothed out.

Pilots don't use restarts like that very often, but when there's absolutely no alternative, the methods they use to make it work are instructive for the rest of us.

Their first lesson is not to rush, but take the time to properly disengage. Almost every system is connected to some others. Just as it's not wise to change into an incorrect gear in a moving car, few restarts work well if begun too abruptly. Files won't be saved properly; programs that remain running need to be prepared as well.

In commercial jets, pilots are taught to discuss this with each other, for few emergencies demand as immediate a response as imagined. Making sure that what they do is set up properly is worth the wait. In fighter planes, it's radio consultations with colleagues on the ground that can take that role.

The analogies are apparent. Switch careers without your friends or family being in accord, and every part of these "systems" you'd been part of will be pulling against you.

Next is to understand limbo. Usually the simplest mechanism for getting wheels down on an aircraft, for example, is to use the plane's hydraulics. But that won't work if you've had to turn off the hydraulics for a restart. This is why trainee pilots are reminded that if they're going to need the wheels, they must think ahead and lower them before the restart. The analogy would be a company realising that if there's going to be less income during a restart, it's sensible to first build up cash reserves.

Waiting out limbo periods is hard. Yet if a pilot keeps nervously commanding further restarts — like someone anxiously stabbing a lift button — systems keep being sent back to the start, and never build up the fixes in time. For fighter jet pilots there are often ground crew members to help; for those of us outside cockpits, our networks of friends might provide that support.

The third lesson is about acceleration. When you restart a physical system, that's likely to mean some chunk of metal — a turbine blade; a heavy industrial pump — which had been brought to a stationary or nearly stationary position, is now about to be forced back up to speed, and quickly.

Making sure the parts aren't fatigued is wise. Avoiding 'personal' fatigue, wouldn't hurt either © Guillaume Souvant/AFP/Getty

That acceleration produces tremendous stress. Hearing an engine with 27,000 pounds of thrust suddenly reignite behind you is apparently an experience not easily forgotten. Keeping the metal parts well oiled helps, for then you only have to fight inertia, not friction.

In business or government, having different units get practice in recovering from sudden shocks can match that. (Getting enough rest ahead of time, avoiding "personal" fatigue, wouldn't hurt either.)

Finally there's the technique of spot-testing, which is used very widely. Novice refinery managers are liable to try restarting everything at once. But then when a problem arises again, how can they tell which part of their system was at fault? On construction sites that's why pressurised water systems are tested one small section at a time.

In emergencies on a jet, skilled pilots will sometimes be able to choose systems to turn off that can help identify where the fault lies.

That sort of diagnostic gets harder in big organisations, for managers will go through immense contortions to show that their division is never the one at fault. It's worth pushing past that, however, for — as we've seen with responses to the coronavirus — governments that are willing to prototype

their plans in small areas and modify them as needed do best; populist governments where the leader can never be wrong do not.

Through this all, there's a great danger to watch out for. Restart buttons are machines for going a short distance back in time. Yet we often dream of going much further and being able to avoid a wrong career choice.

This is very far from our simple restarts, where only the very latest entanglements or errors are cleared away. Instead, in a fantasised hard reset, you're trying for a huge jump, absolutely as far back as you can.

The problem is that if you go back all the way to the original "factory installation" everything you've learned and developed since then is gone. And in that case, who's to say the same problems won't arise again?

That applies especially strongly to society-wide resets, for there your opponents are liable to be eagerly pushing for their goals. That's why regulations to fix auditing companies so regularly fail. The forces leading to cosy arrangements with clients never go away. It's also why former UK prime minister David Cameron's desire for a great reset of the Tory party with his 2016 Brexit referendum so strikingly failed.

It's our moderate restarts that are most likely to do better: going back not as far as we might dream, yet clearing away enough entanglements so that changes which have wide appeal can work. Pilots and engineers have the useful experience that clarifies the necessary steps:

— configure for a safe pause

— prepare for the limbo you'll be in

— toughen yourself for dizzying acceleration when you restart

— and perform the whole operation in distinct sections, so you can identify what still needs fixing, and what does not.

There will be opportunity along the way; lots of it. We just have to start at the right point.

The writer is author of the forthcoming The Art of Fairness