Autonomy

I live in two worlds – the real and the virtual. To some extent we all do now – moving our personae from physical to virtual connections with barely a thought about what this means. But thinking a little more, it struck me that this might just be a good example of autonomy in action.

Autonomy also lives in two worlds. For many people, it means the ability to act independently of controls, to think and act for oneself – for others, especially those used to autonomous systems, it means robots and the subtle grades of control, responsibility and trust that their human operators (or, increasingly, team-mates) share with them.

I could get boring about PACT (Pilot Authorisation and Control of Tasks) levels and other grading scales that range from the human having full control of a system's actions to the system having full control. I could talk about Asimov's laws, and the morals and legal minefield that start to come into play when a robot – designed by humans, but with its reasoning maybe optimized by machines – climbs up the PACT scale and starts to report back rather than wait for a human decision. I could even talk about variable autonomy levels and what will happen when the human-machine responsibility balance shift automatically to take account of their relative task loadings.

But I won't. Because I think, to some extent, we're already there. To me, autonomy isn't really about putting smarter machines into the field, it's about understanding that, once you accept systems as part of the team, you can get past the oh-Gad-it's-Terminator moment and start thinking like a mixed human-machine team player instead of someone working with a load of humans who happen to have some whizzy toys at their disposal. And you know what falls out if you do this? Simplicity. Elegance. Because instead of going "ooh, wow, technology to replace the humans", you play to all the team members' strengths. Build systems and teams that use machines' ability to sift and present data and do the mindless fusion tasks, but also use the humans' strengths in pattern-finding, group reasoning and making sense of complex, uncertain situations.

And y'know what? This is happening every time my virtual self crawls around Twitter or Facebook. I'm using tools, I'm allowing my focus to be guided by filters and tags and ever-more-complex reasoning without entirely stopping to think about what this means (well, okay, I looked up the trending algorithms but hey), but I'm also adding my own human reasoning and focus on top, and using those machine steers to find and work with dozens of intersecting communities to report on and make sense of the world using yet more semi-autonomous tools. Which is a good thing. But in this landscape, with early AI techniques turning up in tools like RIF and the semantic web, and algorithm-based controls in our virtual lives being increasingly taken on trust, it's maybe time to reflect on the subtleties and meaning of autonomy and how it really already applies to us all.

I meant to write a post about remembering to include the human in systems, to not to be blinded by technology. I'm not sure I did that, but I enjoyed the journey to a different point all the same.

Postscript. I wondered this morning if a truer test of autonomy would be arguments - not gentle reasoning, but the type of discussion usually brought on when two people are both sure of a completely opposite conclusion. Like, say, when map-reading together. And then an 'aha' moment. PACT et al aren't really about the philosophical and moral nuances of sharing responsibility et al with machines, oh no. It's simpler: they're about machine courtesy - embedded politesse if you will. Or at least I would have reached that conclusion, but I think it's your turn gentle reader. No, no, after you...