



Immersion Points

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by [August Cole](#)

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Where did the inspiration for *Remote Operations* story come from?

As soon as I read the prompt, I wanted to write about a female combatant since we'll see more of them in the future. I'm also fascinated by the unanticipated stresses and issues already facing remote operators of aerial vehicles. Those two interests came together as the backbone of the story. A number of the details were inspired by my experiences as a grad student at MIT. I've been lucky enough to interact with all branches of the military, to visit a number of bases (including Ft. Irwin), and to be on a campus where people are testing things like cheetah-shaped robots and discussing the pros and cons of advanced fields like synthetic biology. It's a rich environment for generating ideas about the future.

You have a background in neuroscience; how did that shape the human-machine interface you describe, and the effect on the body and mind?

I'm only an avid amateur when it comes to neuroscience, but it does influence a lot of my work. For this story, I played with the fact that the brain's structural components are (somehow) necessary for, but distinct from, consciousness. One human-machine interface is Nurse Ellen, which is deeply connected to Kaia's body in the sense that it has access to every neurophysiological bit of data about her. But it has no access to her consciousness. Kaia is very aware of that wall because it's her only source of privacy. Then there's the interface with the rovers. They could have just been remotely operated robots. But it seemed like a consciousness-level link would be a more substantive way to project a trained soldier onto the battlefield, skills and senses intact, even improved. Such a link would require two conscious brains, hence the design of the rovers. The unintended consequence is that consciousness-sharing is essentially addictive.

Why robo dogs vs. another animal or technology?

First, it's because I'm a dog person. It's not hard for me to imagine having a link of the kind described in the story with my dog and not wanting to give it up. I'm probably not unique in that respect, which opens up an immersion point in the story (see below). I also had in mind a particular robot designed by a team at MIT that moves a bit like a cheetah. Finally, dogs have adapted in an evolutionary sense to bond with humans in a way that other candidate animals (jaguar, cheetah, wolf, etc.) haven't, so a human-dog warfighter seemed plausible.

You describe a military family wholly engaged in war, what kind of a life is their daughter going to grow up into?

As others have mentioned, a downstream consequence of the all-volunteer force might well be a "warrior class" where military service is something whole families do. But I think it's also tough for any kid to grow up with parents whose careers necessitate absence. In the story,

the risk of actual combat death has been removed but there's still a profound sense of absence for Emily, which is what Kaia is trying to fix. In terms of the engagement in war, I think other people – probably the grandmother, Grace – would need to work hard to make sure Emily spends time outside that bubble and develops other ways of looking at the world.

There's a lot of rich detail in *Remote Operations* along with a very clear window into the human experience of your characters, how do you decide which details and textures to include and what gets left out?

Well, since I hit the maximum word limit, I just had to stop with the details at some point. In general, I tried to only include character-level details that were essential for the story. For example, there is no physical description of Kaia because it doesn't matter for the story what Kaia looks like. It matters tremendously that she's a woman and a mother. But right after that she can look however the reader imagines her. I also included details that created immersion points (see below). The reason why Kaia goes to Wal-Mart and not just "a store" is because it's a narrative short-cut that lets people in. Most people can imagine what an American mega-store would look like with half-empty shelves.

What's the takeaway for a VA or military official today from your story if they are to get ahead of some of the problems you describe in your story?

I'd say there are two. First, plan ahead for the female combatants of the future. Systems designed with men as the primary users may not instantly serve women very well. I would be particularly concerned about healthcare in this respect. Second, trade-offs between battlefield effectiveness, organizational efficiency, and technology will probably have unintended consequences. Be open to the fact that optimizing the military's efficiency or minimizing casualties may generate unexpected costs. As we've seen with shorter temporal windows between being on the frontlines and returning home, there is a downside to shrinking the distance between these two spaces because it limits recovery and re-

adjustment time. Increased remote operating will only exacerbate this problem, even if it minimizes physical casualties.

Who (or what) are your creative influences?

There are too many to count. For short story writing purposes, I often think about Impressionist painters who convey meaning so well without including every detail. For world-building in general, I'm always impressed by the creators of universes or really big worlds, the places readers feel they can explore endlessly, like the *Star Wars* universe. I really admire the people who build those huge worlds and also populate them with great characters with whom readers want to go exploring. Terry Pratchett did an amazing job of creating a very rich world ([The Disc](#)) and a set of protagonists who each explored the world in their own way. I'd like to create something that big one day.

How did taking creative writing classes change the way you write both fiction and non-fiction?

Creative writing class taught me to appreciate the importance of immersion points in fiction and non-fiction. Immersion points are the reader's way into the story. In non-fiction, they might be called hooks. Before I was taught to think critically about how stories grab their readers, I assumed it happened because the story was "good". But in good fiction and non-fiction, the writer actually needs to provide a way in. Too much time spent painting a detailed picture of the story-world, or obsessing over an abstract theory or tons of data, bores most readers. Making sure readers have a way to get in to the story you want to tell is important for how people receive the work, whether it's fiction or non-fiction, and that's part of the writer's job.

As a PhD student at MIT, how do you fit fiction writing (or reading) into your political science work?

One of the best things about taking a creative writing class in world-building is that you realize how much of the world we live in is not determined by hard and fast rules. As fiction writers, we were encouraged to look at the real world critically when creating our own worlds, because that allowed us to see how much we could play with and change in our own stories. When studying real-world political behavior and outcomes, that same perspective is very liberating. First, it provides a way to separate out analytically the conditions of the world that are immutable, at least in the short-run, from those things that can be changed or better understood if we just think about them differently. Second, it opens up the space to generate policy recommendations that are based on a broader set of alternatives that take less for granted.

What are you reading, writing or playing that you can't put down right now?

I'm always (re-)reading something by Terry Pratchett. At the moment, it's *Going Postal*. I always find new word-play or another stinging social critique on re-reading. I'm also reading *Ready Player One* and *Gamelife*, so I'm in a bit of a 1980s/90s gaming phase at the moment.

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