Science & Technology

Drone Onward

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|
Winter 2013-14

Andrea Gilli was under fire.

The young Italian visiting scholar at Columbia's Saltzman Institute of War and Peace Studies sat at a long table in a classroom in the International Affairs Building. He had come that fall afternoon to lecture on drones, the unmanned aircraft that are changing how governments wage war and spy on one another. His main point, delivered in a forty-five-minute presentation, was that drones don't pose a threat to global stability, because most small countries lack the technology to build and operate good ones.

Not all the thirty-odd audience members (including students and professors) gathered around the table were on board.

"Israel has been running drones forever without a satellite infrastructure," said Abraham Wagner, a senior research fellow at the nonprofit Center for Advanced Studies on Terrorism, looking mildly exasperated. "It's not that hard."

"Surely if you're giving a country the capability of seeing everything that goes on in the other country, then that is changing the balance of power," said Stephanie Neuman, the director of the Comparative Defense Studies Program at the Saltzman Institute, which was hosting the discussion.

The disagreement shouldn't have come as a surprise. The crowd included several current and former members of the US military (bald heads and broad shoulders abounded), as well as others, like Neuman and Wagner, who had made careers of studying — and arguing — warfare.

But Gilli had come in peace. A PhD candidate from the European University Institute in Florence, he wanted only to deflate some of the hype about drones. "This is a

drone," he said dryly, showing a slide of a RadioShack remote-control helicopter. "What type of drones are we talking about?"

Some drones, like Northrop Grumman's Global Hawk, are the size of a small house and are extremely difficult to build, he noted. Others can fit in your hand and are put together fairly easily. "Different drones can be used to do different things," he said. "Big ones could provide military air support. Lots of little ones could be used as an attacking swarm, like bees."

Others can't do much at all. "Domino's Pizza has its own drone," Gilli said, referring to a small copter the company used to deliver pizzas in a spring 2013 publicity stunt. "Clearly, building something like that is not hard."

Although many countries, including Iran and Pakistan, now claim to be manufacturing drones, it's not yet worth losing sleep over, Gilli said. "Production capacity does not equal excellence in manufacturing. There are lots of tablets in the world, but only one iPad." Not only that, but operating a truly effective unmanned vehicle into foreign territory requires a communications infrastructure that only a handful of countries can claim. "Drone warfare is more than drones," he said. Using them "requires significant resources and capital."

As for shifting the balance of power? Gilli shot back against his cross-examiners. "Building something with a cheap camera, yes, anyone can do it," he said. "But you don't affect the balance of power. Building something that provides significantly greater capabilities is a different thing."

After several tense exchanges, Gilli and his adversaries arrived at an agree-to-disagree silence. Austin Long, a SIPA assistant professor and former military consultant, took the opportunity to share his personal experience.

"I've flown a drone, and it's not as cool as you think it is," he said. "A ScanEagle is about as big as this table. It's cool, but it's not that cool. It crashes when it lands."

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