

100 Voices on Technology & Peace Operations

Supporting the implementation of mandated tasks through digital technologies

| Enabling Conversations in Peace Operations

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A shared language among peacekeepers and with the host population is critical. Language training, in particular for listening and speaking, across tens of thousands of peacekeepers seems unworkable. Fortunately, the rapidly falling costs of digital tools, especially involving virtual reality, offer the possibility to do this effectively and at a large scale.

UNDERSTANDING EACH OTHER: A FOUNDATIONAL PEACEKEEPING PROBLEM

Over 120 Troop Contributing Countries (TCCs) provided military forces to UN peace operations. Troops from multiple nations wear the same 'Blue Helmet' and work together on the same mission to support the same mandate. UN peace operations' diversity, multinational nature, and the broad coalition of TCCs help legitimize UN missions. However, this benefit is undercut as TCCs inevitably speak different languages and come from different cultures. One effect of this is an increased risk of misunderstanding, decreased peacekeeping effectiveness, and degraded communication in already challenging and complex security environments. Known interoperability issues between TCCs – technology integration, training, resources, and support – become all the more challenging.

Having the right language skills is a crucial enabling factor for peacekeepers. The UN Secretary-General's Action for Peacekeeping initiative recognizes this as part of the "effective performance and accountability by all peacekeeping components." The Declaration of Shared Commitments specifically states the intent "to work with Member States to generate the necessary specialized capabilities, including language skills." Security Council deliberations reinforce this view. At the 2019 open debate on improving UN peacekeepers' safety and performance, a dozen nations made statements signalling language education as a critical feature of pre-deployment training. The right language skills are essential for coordination between TCC contingents and other political and humanitarian actors in the field as well as between UN forces and the population they serve and are mandated to protect. Translating aspirations into practice remains challenging. Given that communication in the field requires the ability to convey complex circumstances and sensitive information, the necessary level of skills calls for technology and tools beyond what can be delivered through 'traditional' pre-deployment training.

100 Voices on Technology & Peace Operations

The [UN Peacekeeping Capability Readiness System](#) provides quarterly assessments of the military capabilities the organization needs. The [July 2020 update](#) outlined that TCCs must provide forces with the necessary language skills to function within their roles. Nevertheless, the UN “lacks the capability to deploy sufficient uniformed contingents that can effectively interact with the local population, a critical element of the protection of civilians and early peacebuilding.”

In this way, before even arriving on a mission, peacekeepers are structurally disadvantaged and face a significant barrier to being effective. The lack of language skills truncates their ability to create connections, empathy, or build understanding. Moreover, it contributes substantial systemic problems for effective peace operations. Training UN forces in a shared and common language resolves this problem, though language training has its challenges.

LANGUAGE TRAINING CHALLENGES

Learning a language involves four competency facets: reading, writing, listening, and speaking. Traditional classroom-based language education occurs in a “one to many” teaching environment (e.g., one teacher, many students). However, listening and speaking language training work best in a “one-to-one” setting (e.g., one teacher, one student), which is not cost-effective, time-efficient, nor practical. Frustratingly, it is both listening comprehension and speaking fluency that peacekeepers need the most. A solution to this problem is emerging, based on the confluence of several technology advances enabling the creation of fully-immersive digital worlds.

VIRTUAL REALITY LANGUAGE EDUCATION

Virtual Reality (VR) suggests one avenue to mitigate the challenges of language training for UN peacekeeping. The technology has emerged from years of false starts caused by technical problems and high costs. Improvements driven by widespread consumer adoption have started; user interface and experience have improved; motion-control issues have been resolved; inexpensive simulated and immersive training environments can be developed cost-effectively. At the same time, prices have dropped dramatically, and the systems are improving in quality. The Economist wrote in October 2020, [“smartphones and video games have made the hardware and software needed for VR much more cheaply and widely available.”](#) While the most prominent consumer use-case is gaming, VR applications also have broader industry and education applications, including language training.

What makes things different “this time” are rapidly falling costs associated with the technology. The same changes are driving lower prices for smartphones, computing power, and technology globally. The single most significant historical barrier to successful, comprehensive spoken language education no longer looks cost prohibitive, time inefficient, or impractical.

100 Voices on Technology & Peace Operations

VR language training can deliver quality education directly with training environments tuned to the learner's needs. Customized learning scenarios meet the learner where they are, with relevant examples. A [riverine patrol unit](#) preparing to deploy with MONUSCO in the DRC will find language training scenarios involving patrol boat operations, rather than ordering flowers from a Parisian florist, more relevant and meaningful.

Relevant scenarios are not just nice to have; they engage the person learning. Engaging students and challenging learners appropriately is the benefit of education technologies built by professional educators familiar with the latest advances in language acquisition science. Now that VR tools are combined with the most advanced language processing technologies ever made available to consumers, a promising education tool is available.

MULTIDISCIPLINARY PARTNERSHIPS

The experience of a Vancouver-based VR technology firm, [Virtro](#), is illustrative. Working in close partnership with academics and educators, Virtro began to test the concept of VR language education to solve the problem of spoken language education. The goal was to avoid a common pitfall with emerging technologies and innovation: creating something, while technically impressive, that failed to solve a real underlying problem.

To test their prototype, the team spoke with experienced language educators. Many of these felt no particular need to adopt technology in the classroom. However, on seeing a demonstration of the VR language education tool, they immediately understood its potential. Here was a solution to provide spoken language training and testing, a previously intractable language education problem.

In a pilot project directly applicable to UN peace operations, the team [is collaborating with the Canadian Department of National Defence](#). The project assesses VR-based language training's suitability for members of the Canadian Armed Forces — a military that requires its members to communicate in both national languages (French and English). Expansion to 20+ languages to cover many of the languages Canadian military personnel may need to operate with is being evaluated (a capability directly relevant to UN peace operations).

Of course, Virtro is hardly alone in developing inexpensive VR-based language training tools. Other commercial vendors, such as [ImmerseMe](#) offer a comparable solution based on their experience providing desktop computer-based language training in Australian schools. A major language service provider, [United Languages Group](#), has argued that as costs fall and technology continue to improve, VR will likely be the next step in enabling language fluency.

"Fluency often requires a fully immersive experience. For many, traveling to a country and practicing a language with natives isn't viable. As an alternative, the popularization of virtual reality headsets has rocketed the concept of virtual language learning into a new frontier." [\[link\]](#)

100 Voices on Technology & Peace Operations

They maintain that VR language training provides clear “benefit to language learners who want to take their language skills to another level.” This technology offers the possibility to “revolutionize the way that people learn and practice language.” Recent academic work has started validating this view.

COSTS AND BENEFITS

The optimism for using VR language tools to enhance UN troop contributions’ language skills aside, it is crucial to remain realistic about the possibility of using this technology. In the longer term, collapsing costs and increasing capabilities will drive VR technology affordability and widespread adoption. It will mirror what has happened with smartphones and internet access in this sense. However, at this time and regardless of the benefits it offers, it comes with a hefty price tag.

There are two ways to consider these costs in a practical sense and a third factor to keep in mind. First, consider lessons from the International Committee of the Red Cross and their VR Unit based in Thailand. Accepting the initial costs of using VR were high, the use of VR tools enabled enhanced, cost-effective training and reduced costs in the long run. Still, until costs come down further, overcoming the initial cost hurdle may be beyond the financial means of some troop-contributing countries.

Second, there are other immersive training opportunities with VR tools. For example, early work has already begun to explore how the low cost of running multiple training iterations on-demand with immersive VR simulations can nearly replicate field training exercises, the gold standard for realistic training, in the classroom. This would be an attractive proposition indeed. Save the much more costly live training for what necessarily must be done physically in the field; this is hardly an argument to do away with required field training.

From these initial points, a third more general factor emerges: rapid technology adoption continues globally. Seeding discussions on training needs, target audience, and areas of applicability before a technical capacity’s arrival means the necessary policy, governance, and use-case issues will be better understood. This provides the time to evaluate and consider trade-offs before a new technology actually arrives.

A SOLUTION TO (SOME OF) PEACEKEEPING’S LANGUAGE PROBLEMS

UN peacekeepers equipped to operate confidently in their international counterparts’ language and in the national language of the population they serve is a crucial component of peace operations. It is a critical element of civilian protection and early peacebuilding; interacting with local communities forms the basis of successful peace operations. Because troops frequently rotate (generally every 6-12 months), that theatres of operation feature several locally-spoken languages,

100 Voices on Technology & Peace Operations

and there are cognitive limits of the average human brain to absorb new languages, training needs to be prioritized. It should focus on those languages that strengthen the interoperability among UN troop contributors and enable effective – multinational – operations and cooperation.

Using the immersive simulation provided by VR-language education to rapidly and effectively train verbal language fluency means more cost-effective use of limited resources. It means more deployed troops who can easily communicate with the populations they protect. Moreover, it means UN forces working together for a common mission communicate confidently in the service of peace.

VR technologies have significant peace operations enabling potential beyond language training. Proof of concept work developing simulations for pre-deployment training is becoming a reality with other Canadian and Irish teams' efforts. It has also been alluded to by other TECHPOPS contributions, such as Kjeksrud and Lindqvist, in "Advanced distributed learning for peace operations."

ABOUT THE AUTHOR

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