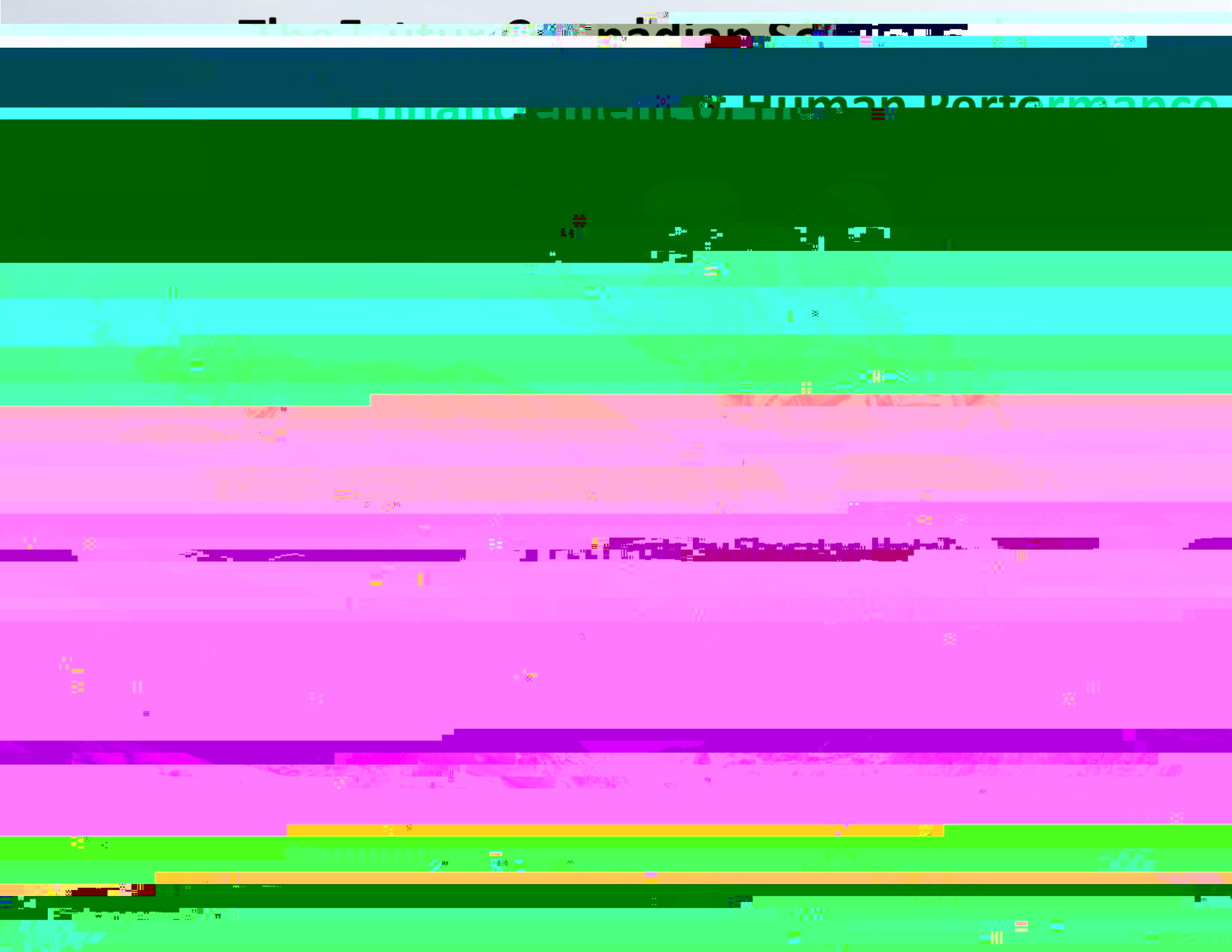

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Technical Abbreviations

- AF – Armed Forces
- CAF – Canadian Armed Forces
- CBRN – Chemical-Biological-Radiological-Nuclear
- DRDC –

Key Insights

Panoptic

An understanding of what HPE is and its implications is a realm that intersects a vast array of disciplines and sub-disciplines. Such an observation speaks to the need to draw on a diverse range of expertise from an array of stakeholders.

Perspective

Gaps in the literature on the topic of HPE include the impact of society's perspective on the soldier and the sentiments of the soldier. Relatedly, it is important to consider the implications of social views on government policy. As well, it is also pertinent to seek to understand how the societal views about HPE can impact factors such as recruitment, retention, and reintegration.

People

Individuals are at the crux of debates surrounding HPE in a number of different ways but environment and context matter with respect to individual or collective sentiments vis-à-vis HPE. Attitudes may vary based on position, which includes realm (government, civil, military), rank (soldiers needs differ based on work), role (naval, air, and ground forces), and gender. It is crucial to consider the psychological ramifications of HPE and not just the physical consequences. Relatedly, it is important not to assume that soldiers automatically want access to these enhancement technologies. Individuals are individual, meaning that we are all unique mentally and physically. Such diversity needs to be considered when designing equipment and setting policy.

Predictive

A crucial axis of consideration with regard to HPE relates to the challenge of looking prospectively to anticipate and appreciate the implications of HPE on a whole host of dimensions. While the methodological toolbox may be full for scholars and practitioners who are seeking to make future predictions, there was a ubiquitous sentiment that ultimately future outcomes cannot be prophesized.

Advances on Human Performance Enhancement,Ó reflects a survey of the global literature on human system performance (HSP) carried out by the Defence Research and Development Canada (DRDC) and the National Research Council of Canada. It is pertinent to note that the focus of the survey was on HSP in general and not just in the military. With that said, Dr. NiallÕs data illustrates that the literature overwhelmingly and disproportionately focuses on HSP in the military. Dr. Niall first explained the concept of HSP before delving into an analysis of the research done on HSP in Canada and around the world. He identified HSP as a concern to the Canadian Armed Forces (CAF) and one of proximate interest for the DRDC. The topic of HSP aligns with eight out of the 10 Ôhard problemsÕ faced by the CAF.

between ethics and legalities. According to Dr. Niall, in Canada, the legal dimension of HPE is studied under the umbrella of ethics. Springboarding off of the topic of legal considerations, participants considered the implications of HPE on international law. At this point

discussion of tailored uniforms, Dr. Dickson also commented on the importance of recognizing that there is more than one population of users and that a once size fits all approach to PPE is unwise. Dr. Dickson noted two types of wearers: first time users, who are generally soldiers who often do not need PPE and specialist users, who are more likely to enter hazardous environments. The design challenge according to Dr. Dickson is to create uniforms that: are low profile,

civilian GPS systems, smart soldier training, the implementation of work/rest schedules, and route planning. Her focus, however, was on smart equipment purchasing decisions. Buying better can entail requiring new equipment to be lighter than what it is replacing, determining weight tolerances of different pieces of equipment for different individuals, ensuring more effective weight distribution, and designing ergonomic kits with modularity, ventilation, and cooling. In Canada, little effort is made to ensure soldiers possess best equipment and the result is soldier failure. Ms. Bossi also discussed the Load Effects Assessment Program (LEAP) and

biomedical performance enhancement. Those who oppose human manipulation share the belief

continue to harness the strengths associated with maintaining the academic and applied worlds, as well as to address the gap surrounding the relationship between ethical and legal concerns, and HPE. Dr. BreedeÕs hope is that the developments that emanated from the workshop will allow the CIDP to further expand its online HPE resources. Dr. BŽlangerÕs hope is that this collaborative body will increase its collaboration with international actors while still maintaining a strong cohesive identity.