Australian Government
Department of Defence
Science and Technology

Socio-Technical Futures Analysis

Request for Information

Socio-Technical Futures Analysis
Critical Technology Foresight
Strategy and Joint Force
Human & Decision Sciences Division

Socio-Technical Futures Analysis

Introduction

The Defence Science & Technology Group (DSTG) has recently established a dedicated Socio-Technical Futures Analysis effort to contribute to its Critical Technology Foresight capability in collaboration with the Department of Prime Minister and Cabinet's Critical Technology Policy Coordination Office (CTPCO), specifically focused on assessment of the societal implications of emerging and potentially disruptive technologies.

Purpose

At the highest level of abstraction, this new effort aims to broaden DSTG's science and technology and:

- Improve future preparedness and limit strategic surprise by ensuring that defendable *social-scientific* techniques are applied to critical technology foresight and impact assessment.
- Enable enhanced strategic direction and inform Australian Defence Organisation decision-making by ensuring the development and application of *socio-technically-informed* research and techniques to assist decision-makers in *holistically* considering and responding to the *full spectrum* technology driven threats and opportunities that are critical to the safety, unity and prosperity of Australia.
- Inculcate a broader awareness of the role of socio-technical analysis within Defence by providing a *socio-technical capability* to deliver on its vision of improving Government's strategic understanding of future Defence and joint force capabilities, concepts, contexts and technology trends to address threats and develop opportunities.
- Empower and enrich Government narrative on critical technologies by enabling collaboration with domestic and international partners in the development and improvement of *socially inspired* tools, techniques and methods for technology foresight and impact assessment.

Research Focus Areas

To support this effort, DSTG anticipates operating a modestly funded targeted research and publication scheme in the current and forward financial year(s) with a

view toward funding externally publishable socio-technical research on the following non-exhaustive priority research areas:

1. concepts and theories that integrate or otherwise account for the interplay between emerging and potentially disruptive technologies and society;
2. comparative analysis of the consideration of social factors in international approaches to critical technology foresight;
3. analytical models for assessing the societal impact of emerging and potentially disruptive technologies;
4. methodologies for designing, developing and deploying technologies in a socially-responsible manner;
5. social analysis of technological convergence; and
6. the role of technology in preserving social cohesion in times of insecurity.

There is particular interest in research that is focused on furthering Defence outcomes, but consideration will also be given to more general research that may be applicable to internal subject-matter experts. Preference may be given to responses that aim to collaboratively develop research with DSTG Socio-Technical Futures Analysis experts.

Initially, there may be a preference for work that expands Defence capability to understand socio-technical outcomes at a general or technology-cluster level over work over that is limited to specific technologies.

Request for Information

DSTG requests that parties interested in projects in line with any of the above Socio-Technical Futures Analysis Research Focus Areas complete the form below as an expression of interest by no later than **30 September 2022**. Responses will be stored, assessed and investigated on a rolling basis in line with ongoing priorities and

available funding. There is no set timeline for answering responses to the request but all will be acknowledged via email.

Expected Output

The preferred output is a scholarly journal article suitable for external publication in a reputable outlet.

Other output formats, such as internal reports, tools and so on, will be considered on a case-by-case basis.

Timeline & Quantum

Responses are sought for projects that are ready to execute at relatively short notice and can be completed in a maximum of **9 months**, in the first instance. Multi-year projects may be considered on an exceptional and staggered/staged basis, with each stage independently impactful.

Any projects that involve human or animal research must be cleared by the relevant Defence ethics committee, which can add several months to project timelines. If required, you will be informed of the process at a later stage.

Projects must be achievable within a maximum rough order of magnitude (ROM) of **$75,000.00**. It is anticipated that DSTG will be able to support no more than 5 projects per year and that the many of these will be achievable at less than the maximum ROM cost.

Any potential university overheads, mark-ups or similar must be clearly outlined to establish value for money and expected return on investment.

Eligibility

Individuals must apply on behalf of the organisation with which they are affiliated, such as a university, not-for-profit organisation or research organisation/consulting firm. All organisations or individuals must hold an ABN. Joint applications are welcome, contingent upon any consortium having a lead organisation. To be a lead, an applicant must designate the main contact and/or project manager. International

applicants are eligible, provided they can demonstrate the qualifications, skills and necessary background for the topic and activity proposed.

Response Details

Responses should be provided as an A4 Word document to the contact address below and include the following details:

1. Title:
2. Name:
3. Position:
4. Administering organisation:
5. Intended project title (max. 30 words):
6. Abstract/executive summary (max. 100 words):
7. Intended methodology (if applicable, max. 400 words)
8. Detailed summary of the intended research (max. 1200 words):
9. Proposed output/deliverable:
10. Statement of the PI's qualifications, expertise and suitability (max. 300 words, plus a website link):
11. Participant summary (details of investigators beyond the PI):
12. Will the research involve collaboration with any other party within or beyond Defence?
13. Approximate timeline (assuming a contract is issued in September):
14. Outcomes and relevance to DSTG's stated Socio-Technical Futures Analysis aims and research focus area/s (max. 500 words):

Contacts

Questions and responses (Subject line: STFA APPLICATION) can be submitted to:

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Strategy and Joint Force
Human & Decision Sciences Division
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