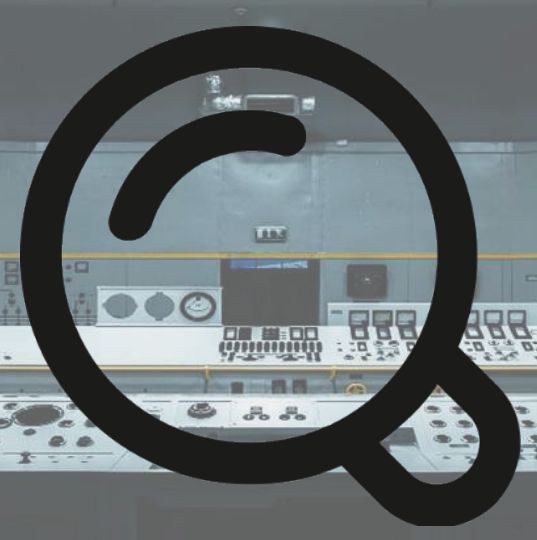# TRUST IN AUTOMATION

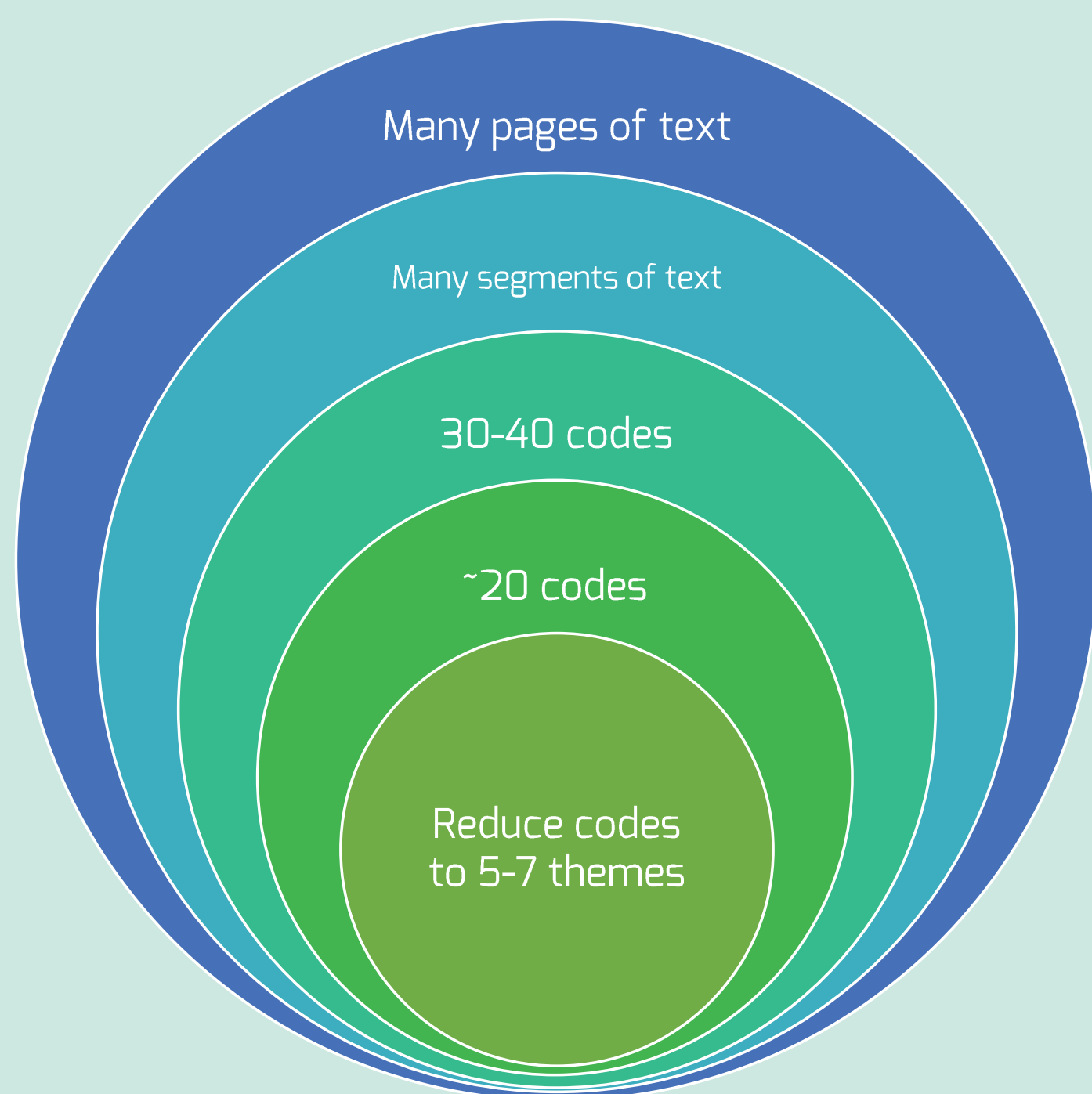## QUALITATIVE STUDY OF BEHAVIOUR AND ATTITUDES TOWARDS EMERGING TECHNOLOGY IN MILITARY CULTURE

The study seeks to explore maladaptive attitudes and behaviours which play a factor in mistrust and under-reliance with trust in automation (such as decision-making software in command and control stations). Current research focuses on technological and design related features, whereas human-focused approaches to help identify issues intrinsic to working with automation are not adequately explored.

A qualitative inquiry will gain rich and diverse data from participants in two core groups: *civilian and ex-Military personnel (includes both ex-military and working within a military culture)*. Sub-groups within military personnel will include submariners, surface navy personnel and RAF pilots. The semi-structured responsive interviews will also explore technology adaption and Chaoplexic Warfare themes.

Theoretical Framework · Methodological Rigour · Narrative Approach · Interview Protocol · Data Analysis

Initial read through of data — Many pages of text

Divide text into segments of information — Many segments of text

Label segments of information with code — 30-40 codes

Reduce overlap and redundancy of codes — ~20 codes

Collapse codes into themes — Reduce codes to 5-7 themes

Transcriptions will be analysed via NVIVO and Leximancer. Data synthesis will utilise Grounded Theory (GT) and Interpretative Phenomenological Analysis (IPA) to populate a concerns register (similar to hierarchical content analysis) and a recommendation matrix. These outcomes can further inform macro-ergonomic visualisations such as Data Frame Theory, Flexecution and Sensemaking .

The narratives and recommendations extracted from the qualitative inquiry will be used to create situational vignettes for training purposes to address maladaptive behaviour in basic and initial training. Exploration of themes such as openness to adaptation and technology usage may suggest future research into whether specific trust and risk behaviour features are dominant in certain narratives.

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