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weekly activity report 169 (loughry)

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I ordered and installed a licence for the specific software tool recommended by the assessors, called ATLAS.ti. The tool is designed for qualitative data analysis, a methodology I am not well acquainted with yet, but I am going through the on-line tutorials and reading the software manual. The manual is well written. For background on grounded theory and the technique of coding of textual data specifically, I ordered several books including the original reference on grounded theory discovery, and on qualitative data analysis and coding (Glaser and Strauss, 1967; Charmaz, 2006; Saldaa, 2009). As a check, I obtained a sample of the raw data he used from Shamal. It appears that the structure, format and content of his source material (some notes from a data session in 2009) are sufficiently similar to my data in both level-of-detail and the type of events captured to suggest that the coding method prescribed in Saldaa will work. The data gathering methodology is similar (and I can see application of some techniques from the REN module) with the important exception of dependence on audio and video recording for later transcription, a restriction of my participants' environment that I work around. Coding will be done first against unclassified artefacts obtained from R'' with references to closed discussions likely being proxied by a second anonymisation framework made for the purpose. Something I like so far about the ATLAS.ti software is that it facilitates capture of a lot of miscellaneous documentation that I previously lacked context for: org charts, funding flows, alignment indications and notes from informal discussions. I am optimistic that the coding process will get off to a fast start.

Dr Martin and I will meet next week after the holiday to set down a plan for coding textual materials from three case studies before the end of Trinity. My intent is to code R'' first, since the data for that one is in the clearest form, then to obtain validation in March that the result is sufficiently good. After that, R' will be coded, followed by R_zero. In the same time frame, chapters 1--3 will be finalised and presented for review. By the beginning of summer I should have confirmation of status firmly re-established. Due to the holiday, as expected I have not heard back from Julie Sheppard or DGS about the revised deadline or seen the assessors' report, but I anticipate that the assessors' recommendation of two more terms will be provided and this high-level schedule will be sufficient to meet it. Other things I want to talk with Dr Martin about next week include my thesis statement and title---sufficiently general that I think it needs no alteration---although the thesis problem now needs to be restated and I need advice. I have funding for nine more months from Air Force contract FA8750-09-C-0006; after that my funding will be at risk for three months through the end of calendar year 2011, although I intend to apply for one more US federal student loan next week to cover the shortfall. I owe the sponsor a quarterly progress report on the probabilistic redaction research project this week; I will have that done and submitted for review by the 31st.

Aside from the literature review, which now requires a new section on

grounded theory and qualitative data analysis, and the methodology chapter, one thing that need not change is the model of accreditor behaviour which the assessors agreed with and will be used in the interpretation chapter. In the current embodiment, accreditors with different security clearances reside on different sides of a multi-lateral CDS and have different but possibly overlapping knowledge of risks and risk mitigations that at least some accreditors are not cleared for. Accreditors will communicate but will refuse to violate security policy (Bell--LaPadula with extensions). Rather than establishing a covert channel, I will look for evidence that some exist. The developer occupies a semi-privileged position with knowledge of some of the risks and risk mitigations but is precluded from sharing information unrestrictedly with accreditors by the position of the certification authority. The initial baseline risk determination is set by the certification authority; the goal of each accreditor is to minimise the residual risk after all supplemental security controls have been applied before ATO is granted. The preceding statements, I think, will inform or affect the discovery of a grounded theory, or three grounded theories, from the case studies. Waiting for Glaser and Strauss (1967) to arrive to learn the answer to that question.

Plan for the next week: meet with Dr Martin to present and examine a detailed plan with fine-grained milestones for the next two months. Re-establish task list with new targets and delivery dates. Finish reading software manual and tutorials. Write quarterly report for Air Force sponsor.

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End of WAR 0169.

References