

File 20100115.0828: Weekly activity report 0119:

weekly activity report 119 (loughry)

Joe Loughry

Sent: 15 January 2010 08:28

To: Niki.Trigoni@comlab.ox.ac.uk; Andrew Martin; Joanna Ashbourn

Cc: andrea@hpwtdogmom.org; Joe Loughry; mmcauliffesl@comcast.net

Attachments:

Weekly activity report no. 20100114.2300 (GMT-7) sequence no. 0119, noughth week HT

I met with Dr Martin yesterday to discuss my thesis statement and methodology. It was a good meeting that accomplished a lot. I will describe in this report what we talked about.

Background: last week GSS reports came out, and this term's report had the 'with concerns' box ticked---as it should have. Lockheed took up way too much of my time in Michaelmas term, and this affected my progress. The result was that I got stuck throughout the holidays and didn't make any progress. I'm concerned too about my lack of progress last term, so I was relieved to see it when Dr Martin ticked that box, even though it probably raises a flag to the Director of Graduate Studies (DGS).

I started off by asking about the GSS report, and whether Prof. Kwiatkowska [note: DGS] had read it, and whether I should plan on having a talk with her when I am back in Oxford in a few weeks. Dr Martin said she probably has not read it yet, but I should definitely have two things with me if and when I meet with her: some real progress to show off and a definite roadmap. I appreciate that; I will follow Dr Martin's advice and have them both ready. It shouldn't be a problem now that I have got back on track and moving forward again.

Next we looked at my methodology outline, which I attached to the meeting agenda I sent out beforehand. I showed my current thesis statement and asked for some help. Dr Martin did an interesting thing then: he asked me to state, in five or six sentences, what problem I was trying to solve. Just state it. I gaped for a bit on the video teleconference, then just said it. Five or six carefully phrased sentences just came out:

It is widely acknowledged that information security Certification Test and Evaluation (CT&E) is expensive in terms of time, number of people required, and duplicated effort. That high cost makes CT&E a special event that is not done often, either because fewer systems requiring CT&E are made, or because not all of them are tested, or because the ones that are made are tested less often. Defence in depth is a well-established principle of infosec engineering, but people confuse the duplication of effort in CT&E with defence in depth. The massive overexpenditure of time and effort does not yield an attendant increase in security.

That's a pretty good thesis statement, said Dr Martin. (I was surprised and very pleased to hear him say that, because I've been struggling with getting to a good thesis statement all this time.) I protested that it lacks a theoretical component, and we talked about that for a while. Dr Martin gave me some good concrete suggestions of places I can look to maybe find a theory that can be adapted to fit. He suggested that I look for criticisms of the Common Criteria, at the safety critical literature, and at ISO 9000. I have more detailed notes of this conversation in my lab notebook and I am starting to track all those down. Dr Martin further advised that I go look at old DPhil dissertations in the Comlab for their thesis statements. Many aren't any more concise than mine is. I have a thesis!

Next we looked over the outline of my methodology in detail. Dr Martin asked me to change it around a bit to make explicit the objective of the steps in the methodology. Tell the reader up front why I am doing these particular high level steps in my methodology. Look at how it recursively decomposes and present the information in a logical sequence without burying the important information at the end. It's interesting what you are doing here---show the reader how interesting it is.

I am remembering again why I was so excited in the first place, about what a cool technical problem this really is. I want to know what the answer is. I can communicate that sense to the reader in the way I write the methodology chapter.

Once the methodology chapter is written, which I need first because I already volunteered to give a talk in Oxford on 19th February about it, that will also be most of the Crosstalk journal article written right there. The remainder of the journal article is already written in the guise of the poster I wrote last term. Once the methodology chapter is written, which will be in another week or two, I can complete the journal article quickly thereafter.

For the rest of this week I am searching around for a theory (or at least an axiom or two) that I can adapt to my thesis. I am continually expanding the level of detail in my methodology outline and getting ready to sit down and write it. My deadline for writing the methodology chapter is the middle of February when I will be in Oxford and I volunteered to give a talk on it to the software engineering department. (I will have to leave some time to make slides and write a presentation before then as well.) I am on a roll so I am not going to spend any time updating the schedule until I have the chapter written.

Next meeting: Monday 18th January 2010 at 1400 Oxford time.

Status: feeling pretty good and making progress.

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weekly activity report 119 (loughry)---addendum
Joe Loughry
Sent: 15 January 2010 08:46
To: Niki.Trigoni@comlab.ox.ac.uk; Andrew Martin; Joanna Ashbourn
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I should explain (it's very late and I wasn't being clear) why I am looking for a controlling theory. It is not just because I think my thesis needs a theoretical aspect.

I think there is a controlling theory, a thread that runs through the whole gamut of certification test and evaluation, something that I haven't found yet.

That's what I meant I'm looking for.

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End of WAR 0119.

References