File 20100917.0707: Weekly activity report 0154:

weekly activity report 154 (loughry)
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In attempting to model accreditor--accreditor communication interactions in a way that shows correspondence with observed events [Is there a word for ‘similarity of behaviour’ the way ‘isomorphism’ means ‘similarity of form’? If there is, I have not been able to find it. Mizruchi and Fein (1999) use the term ‘mimetic isomorphism’ in exactly the way I mean.], I have gone back temporarily to the Common Criteria as a (comparatively) bare-bones example of the type. The Common Evaluation Methodology (CEM) of the CC sponsoring organisations spells out out a suggested sequence of tasks and procedures that evaluators must perform on the ST and evidence of a product in evaluation. To expand on the 5 C’s of accreditor motivation, we can see that in the first case study, L were acting in accordance with C2 and C3 (Corporation and Contract, respectively) in their evaluation if we consider C2 to encompass, through L’s policies, practises and procedures, the CEM. It is illuminating to consider events seen from the perspective of D in light of a new article by Spicer (2010) in which the author points out that both the environment and the evaluated configuration are the responsibility of the customer, something that is not well communicated or understood by PP end-users. I emailed Patti Spicer and asked for a meeting with her to discuss this; she responded and suggested a telecon to include Charles Nightingale and Hal Forsberg, after they return from a business trip. I will arrange for that telecon as soon as possible, either next week or (more probably) the week after. It should clear up some unknowns that are hindering me from getting a numerical simulation working in MATLAB. It is also directly related to the Crosstalk article on my task list.

I have been reading a new book by Hahn and Valentine (2010) on MATLAB, working through their examples and trying to figure out how to solve my problem. The suggestion I keep getting is to model it as a physical system (think of springs pulling a weight in different directions), get it working in the simple case first, then start adding adjustment factors to account for complications. [It doesn’t help that this week’s xkcd is about exactly the same thing.] Accreditor behaviour, deriving from accreditor behaviour incentives, is proving to be surprisingly difficult to model. I said I would have a paper ready this week to submit to this year’s ACSAC describing the solution, but tonight all I can do is outline the problem and describe a bunch of failed solutions that do not work. I am not going to submit the paper in its current condition. I would rather have a good paper accepted by a later conference than a poor paper rejected now. I read some advice in Patterson (2001) and Vardi (2010) on hypercriticality and peer review that made it seem essential to concentrate on the introduction and the first page, because that is what reviewers read. I am still planning to submit the abstract of this paper to the Comlab DPhil Student Conference tomorrow, but I am not comfortable submitting to a national conference a problem without a solution that works---someone might see it and publish a working solution first. I was talking to a couple of people in Lockheed earlier today, and when they asked about my thesis I rattled off a (cogent, I thought) description of my latest thinking on the subject---and suddenly I thought, ‘oh no, what if that gets out before I can publish it.’ I need to do more work on it before I can put this before peer review, and right now I am worried about getting scooped.

Reading this week: besides the MATLAB book, I found a large tutorial by Pennock and Wellman (2004) on ’Markets in Uncertainty’ and I am going through it looking for inspiration. To add to my literature survey, I found a reference to the earliest written description of one of the principles I am trying to encode: ‘Fear of harm ought to be proportional not merely to the gravity of the harm, but also to the probability of the event.’ in \it{La logique, ou l’art de penser} by the monks of the monastery of Port Royal (1662), quoted in translation in Bernstein (1996), citing Hacking (1972). Bernstein recommended another book by David (1962) on the discovery of probability, which I will probably end up buying from Amazon. In the simplest analysis it is true, of course, but compare to Schneier’s (2008) observation that people tend to attribute a larger value to potential losses than they do to potential gains (apparently modified by the distance between the change and their current state). All these forces need to be modelled in the numerical simulation if it is to have any chance of predicting accreditor behaviour during ST&E. Someone else recommended Augustine (1997) on how engineers communicate. I have it on order.

I helped out Ronald Kainda this week with a reference that he was looking for; I remembered having seen it in a very weird paper by Frkjr and Hornbk (2002). I am giving another talk on TEMPEST next week to the Red and Blue Teams at Lockheed Martin who specialise in testing internal systems for intrusion vulnerability. They expressed an interest in hearing about new vulnerabilities that have been discovered within the last 10 years and attacks that could be implemented at low cost. I adapted an earlier talk I gave about optical, conducted, tribo/acoustic, thermal, and induced emanations. That talk is scheduled for 23rd September.

There was no RM 5.0 CT&E hotwash telecon this week. The participants (at least the developer) are still waiting for the pre-CDTAB results. NSA I173, I733, and DNI CAT have submitted their final draft reports to UCDMO for the pre-CDTAB. I predict there will be a telecon on 23rd September to discuss the reaction of the CDTAB. I received a kind response from Paul Ozura to my email asking for help getting accreditors to talk to me; he said that the problem likely stems from the fact that they do not know who I am, at least in my rle as a University of Oxford researcher, and that consequently they are ‘afraid that what you write may fall into the wrong hands that could use what is said against them.’ He asked me to show how I am approaching the accreditors, and offered to talk to a few DAA reps and try to open some doors. I will send a detailed reply to Mr Ozura in the morning.

I learnt some more background this week about the funding relationship extending from the U.S. Navy, through the PMO, to the R CDS developer. The Navy has never fully funded the programme since it took over sponsorship from the first sponsoring agency; the programme has been funded at-risk by the developer for more than a year at present. Suddenly, two weeks before the end of Fiscal Year 2010, the developer has received ALL the money from the Navy, and needs to figure out how to spend the money during this FY before it disappears again October 1. To not spend the money would hurt the feelings of the COTR, who worked very hard to get it. Capital expenditures are impermissible; it must be used for operating expenses, e.g., software development, research, maintenance and enhancements. The developer has a new roadmap, something formally documented for the first time, that should improve response time to inverse funding crises like this in future.

There is an executive currently asking around the corporation why there are two CDSs in Lockheed, TMAN and RM. The difference, of course, is that TMAN has not been under continuous development for a decade the way RM has; TMAN have been around for a long time, but not continuously developed. In fact, it appears that TMAN started over recently. Their code, at present, is probably better than RM's, but their functionality is much less. In the UCDMO community, almost no one has heard of TMAN; they have all heard of RM. RM has competed with TMAN many times, and never lost a proposal. The developer expects that this executive will go away after a while.

I owe a draft Confirmation Report to Dr Martin on 24th September.
I intend to get that done on time. I had no meeting with Dr Martin this week; there have been too many other things going on. I will set up a meeting next week.

My current task list (in priority order, most urgent first; work on tasks in this order):

1. Finish abstract for the Comlab DPhil Student Conference (due tomorrow). This is the first two pages of the updated 'information asymmetry' article that I decided not to submit to ACSAC; I need to find a new conference for it to go to.
2. Set up a meeting with Patti Spicer, Charles Nightingale and Hal Forsberg at CSC.
3. Write a detailed justification for Paul Ozura.
4. Read the Pennock and Wellman (2004) tutorial on uncertainty markets.
5. [for Lockheed] Finish quarterly progress report, FY 2010 summary progress report, experimentation report and technical presentation for the Air Force (this weekend).
6. Write confirmation report for Dr Martin (due in one week).
7. Finish reading the MATLAB book; fix the broken numerical model; get a simple option mechanism based on the Dutch pattern working; implement 'acid test' in MATLAB.
8. Do small tasks: update first case study chart with audience suggestions from VALID 2010 conference; draw fault-tree diagrams for $R^\prime$, $R^{\prime\prime}$ and $S^\star$; draw up organisation charts for $R$, $R^\prime$, $S^\star$, $R^{\prime\prime}$, $N$, $L$ and $G$; document the current set of anonymisation codes.
9. Request a meeting with Dr Martin.
10. Crosstalk article: immediately after writing confirmation report, write the interpretation of the first case study in terms of accreditor behaviour incentives; write a preliminary overview of second case study based on final reports from NSA I173 and I733, DNI CAT, ST&E, and the POA&M Validation Report.
11. Based on what I learn from Paul Ozura, rework the other two planned surveys done for background on the case studies.

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End of WAR 0154.

References