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**Assessment of AI Needs to Enhance RAND Research Methods**

**RAND Corporation**

**Interview with Molly Dunnigan, Arroyo SDR, July 14, 2025**

**Section 1: Description of commonly used research methods**

1. **Can you describe the quiver of methods commonly used within your methods center? Which methods are most commonly used?**

* Qualitative and quantitative. Some wargaming although more of that in other parts of RAND. TTXs. Statistical analysis and forecasting…
* Scenario analysis
  + This method involves a lot of variability, some projects have a scenario team and they develop scenarios and they have to put all the stuff and utilize those to feed through other information they are finding and come out, builds on history, doctrine, what is the Army of 2040 going to look like, what scenarios will they fight. Or very focused on regional work we do; what is a China fight going to look like in 2025, story telling tool, trying to get assumptions right.)
* historical analysis
  + This method involves ocument review, archival, interview
* case studies
  + This method involves Reading literature, interviewing, observation
* interviews, expert elicitations (which includes interviews, focus groups, TTX), focus groups, surveys,
* Modeling and simulation
* Henry Harper, used to have a program that RAND maintained for the army called JICM, a modeling and simulation tool, we don’t use them very often., we wanted to switch it over, forget is one, all in F&L). Online or offline.
* Risk analysis
  + This method involves basically looking at pros and cons of different decisions or different outcomes, sometimes ppl call what they do risk analysis but there are robust methods coming out of decision science. My easy button is willy nilly using the term risk analysis I tell them to talk with Lauren Mayer, ARDD for engineering and applied sciences. She is a decision scientist and will come up with a decision tree type stuff. What is the risk of the second and third order effects and sometimes it does become quantitative.,
* cost analysis
  + This method is not on my internal list but we do a fair amount of cost per effect analysis or return on investment analysis. We have a sub portfolio under resources.

Other thing is literature review, we do some text scrapping.

I don’t … where you write a code, a specific LLM for your project to sift through hundreds of pages of information to pull out what is most relevant.

**Which of these methods is most important?**

The research question needs to drive this.

A lot of people integrate a TTX into their research design. It is a project easy button. Or an internal TTX or TTX with different people and the sponsor to work through stuff they are finding. Some is data collection, other is confirming findings. I see that as a trend of something we could do.

Return on investment and cost per effect… coming up on return on investment, body of work that pulls on that stuff. Angel O’Mahony. Katharina Best and Craig Bond two others. Wrote a report for G 3/5/7 titled Cost per effect and it is almost an economic textbook… looking… if looking at a weapon system, what is not the cost per missile but cost per effect.

**What about studies with big impact?**

Most splashy tend to focus on regional issues, like China, Russia and Ukraine, Iran, big one that Alex Evans wrote on Iran and Russia that made a huge splash. Most read article. Some stuff on homeland defense is almost all classified that is a place where rand is seen as a thought leader.

Some stuff on force posture, we did have a report on the cost of different European force posture options, published in the spring. Cheaper to keep their existing force posture than to do anything different. We do a lot of good feedback on things graphically depicted like the Evonne Crane stuff, infographic or overmatch quality. That is not a method but a presentational method. We are one seat deep on the bench with Evonne but they have hired a couple people on the design team. They asked us to do that with our homeland defense work… they kept asking us.

**What are methods worth investing in?**

Interview coding, something way better than Dedoose. We do a lot of interviews and the coding is uneven in quality. So it would be great if we had some standard way to do that and a tool to help with that.

Something that helps us with graphics. It would be great if we were not one person deep on Evonne Crane. Great to make graphics that were accurate. I am trying to make one in chatgpt and it makes people without arms and I can’t edit it. Something like that and really easy for people to use.

We have the forecasting stuff; Tony Vossalo is doing it and I don’t understand what they are doing and how they are doing it but making forecasting more broadly applicable … that is what we are all trying to do, see into the future. If we could forecast more accurately in the outset then we could have more accurate recommendations than competitors.

**What are your general thoughts of AI?**

The risk is that we will end up utilizing AI for stuff our junior folks used to do. We can use AI for a literature review that would have taken a RA 20 days so benefits of cost savings but I worry about career development and skillset development among the younger folks.

Other thing I’d say is worried about implementing AI very much in Arroyo, I do think that is a risk. My sense is the Army thinks our competitors are integrating AI wholistically. Secretary of the Army wants Palantir and not RAND. Palantir would be doing things on our data. So we think there is a risk to our research being utilized opportunistically by AI company to get ahead and to put us out of business. So how do we make sure we don’t get put out of business in that environment. How do we maintain a competitive edge. There are ways we do that to develop propriety tools but that day is coming very quickly.

**How do we promote responsible adoption?**

If we are read in enough on it. I feel like this is the type of thing we are not read in enough on it. The way AI adoption happens is stovepipped and a lot of the discussion is in GER, so in QA process, I will like, if someone utilized RANDCHAT (to write their report) to make sure that is not happening. So we could try to catch stuff on the back end but that is not being innovative in ways that maintain our competitive advantage. Need to be company wide ai initiatives that every unit and division are asked to participate in.