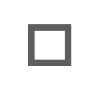
**Transcript**

July 15, 2025, 7:06PM

 **Todd Helmus** started transcription

 **Todd Helmus** 0:05  
OK.  
All right, so we're going.  
OK.  
So let's hopeful to do a quick round of I \*\*\*\*\*\*\* hate looking thing round of introductions.  
So Dan, I think I.  
I think I I got the once over on you. Thomas. Hi Brittany.

 **Thomas Light** 0:26  
Yeah, sure.  
I'm so I've been in with Rayan since 2007.  
I'm trained as an economist, but I do.  
I'd say maybe like half the stuff I do tends to have a cost angle to it and.

 **Todd Helmus** 0:38  
Really.

 **Thomas Light** 0:41  
But.  
The cost work that I do is mostly for the Air Force.  
Within the resource management program.  
If I had to kind of describe the cost well.  
Is that a later question?  
Like what kind of cost work do we do? Or do you want me to kinda get in?

 **Todd Helmus** 0:57  
Sure, I'll ask.  
I'll ask that one next.

 **Thomas Light** 1:00  
OK.  
Yeah. So is that overview on me or?

 **Todd Helmus** 1:01  
So.  
Yeah, that's yeah, that that's. I don't even know any more information about you.  
Really, David?

 **Thomas Light** 1:07  
OK.

 **David Metz** 1:10  
And the senior quantitative analyst, I'd say similarly about half my work is in cost estimation 1 area where I work in that's a little bit different is I do a lot of regulatory impact analysis where we're asked to do to assess the benefits and costs of different polic.

 **Todd Helmus** 1:23  
Uh-huh.

 **David Metz** 1:28  
And some cases, the costs and benefits become more abstract concepts because you're trying to monetize things like.  
Equity privacy.  
You know.  
Prevention of terrorism where you know there there's big cost implications, but it's very hard to monetize those.  
So I do specialize a little bit in this.  
Like, how do you quantify really hard things to quantify, but then the kind of the more standard things where we'll jump into projects and help is when you're doing facilities management, disaster recovery or designing army installations?  
You're gonna want a rough order of magnitude like cost estimate and that I'm not an engineer, but I'll come into the picture and kind of dig into deep sources of, you know, what's an inventory of army installations. In the past, I'll collect data on them and then say.  
Well, if you reconfigured this and wanted to build this base, here's what we can learn from.  
You know, all these installations around the country and here's how we can estimate.  
A rough cost for a new facility given these parameters.  
So I'm often thinking in those terms.  
Taking costumes for one place and applying it to like a new installation or facility. And that's crossed, you know, path and H soak and a lot of that's in the disaster management. Like we want to rebuild things like schools and hospitals.

 **Todd Helmus** 2:47  
Hmm.

 **David Metz** 2:55  
Can we come up with a rough way to to cost those out?

 **Todd Helmus** 2:59  
OK, awesome.  
Thanks David.  
Hi, Brittany.  
You just missed my sort of round the world discussion of what we're doing here.

 **Brittany Clayton** 3:05  
Bye bye.

 **Todd Helmus** 3:07  
The upshot is trying to understand what it is you all do here.

 **Brittany Clayton** 3:08  
OK.

 **Todd Helmus** 3:13  
Trying to understand what caused analysis is because I don't understand it and then thinking through like are there long poles in the tent that that could or or may not be relevant to to to automation things that could help you guys do your work. I mean I and.

 **Brittany Clayton** 3:27  
OK.

 **Todd Helmus** 3:28  
I'll and I'll share before we get through this.  
I'll fire PTN on the on the group chat.  
For your time.  
And I've recorded this conversation as I think you probably saw.  
But anyway, unless you have any questions, I wanted to introduce yourself.

 **Brittany Clayton** 3:41  
Yeah. Hi everyone. I'm Brittany Clayton.  
Bennett ran for about 7 years almost, and prior to that I did a decade in the Navy as a civilian, working for the Naval Sea Systems Command, primarily working on maritime systems.  
So surface ships, submarines on board, weapon system type things.

 **Todd Helmus** 3:59  
Cool.

 **Brittany Clayton** 4:01  
And I was in the cost estimating office at the Technical war warrant holder for cost.  
On for navc. So a lot of.  
What I've been doing here complements a lot of that.  
Lots of kind of bottom up cost estimating of maritime systems.  
A lot of auditing of other organizations cost estimates, so you know, we'll be given some sort of build up of an estimate and ask questions, make sure we understand it, add some critiques or some suggestions.  
Spend a lot of time in and around cost data, which I think may be a nice touch point to some of the automation and we've been thinking through.  
Through that a bit on some of the open source budget data that is housed and archived back a few decades.  
So I can I can share some of that work as well.  
Mostly my work complements the Defense acquisition work. So sometimes I'm in the throes of cost estimating.  
Sometimes it's kind of where that cost estimate fits into the broader acquisition landscape.  
So heading towards the, you know, analysis of alternatives or.  
Into milestone AB and C for some of these major a cat programs.  
So that's kind of my playground at Rand.

 **Todd Helmus** 5:20  
OK.  
Awesome.  
All right.  
Thanks. That's really helpful.  
So maybe you guys can give me now a little bit of a tutorial on cost analysis.  
Are there different types of?  
Or can you walk through like I presume not all cost analysis is the same.  
I sort of get that that gist from you.  
Just the the breadth of background that you all described, but are there categories of of different types of cost analysis?  
That that we can think through.  
Tom, I see you nodding your head so far away.

 **Thomas Light** 6:02  
Sure, I I have.  
So we develop cost estimates for things that don't yet exist.  
Sometimes that's one line of cost work that we do.  
There's another line of work that we do in the cost world where we.  
Try and understand why costs have changed historically.  
So that's typically using historical data and trying to pull the costs apart.  
So you kind of understand what was causing outcomes, cost outcomes or other outcomes to occur that could be driven by cost.  
Then there's like cost benefit analysis, which is a little bit different than those two things.  
Cost benefit analysis.  
You might have a cost estimate as part of it, but.  
You're adding in other factors that would inform a decision on like what what to do, what what sort of investment to make in the future, I don't know.  
Those are three lines that I kind of combined others.

 **David Metz** 7:09  
Yeah. Along this this spectrum, I'll piggyback on that.  
Just I would think you have like the high end engineering cost estimates where you're using software like Rs means. There's some commercial guides where you really need like cost per square foot per you know material used where you have so many, you know high level specifications we need.  
This property to 200 square foot per office.  
We're gonna use this type of wood steel beams.  
And you have those, you know, engineering quality estimates.  
That's kind of the very detailed. That's very extreme.

 **Todd Helmus** 7:44  
Very detailed and specific.

 **David Metz** 7:49  
Then down the road more what I do is, you know, we need to build a hospital in Puerto Rico to replace the one that collapsed after the hurricane.  
You know, we need a rough ballpark where we're not getting into what materials and square foot you know we need it needs to serve this many people.  
So it's a rough order of magnitude kind of estimate.  
And I'd say that falls in a lot of the DoD projects I work on, the HsoA projects where you're talking about, I roughly need a building that can accomplish XYZ, can House 300 full time workers. And you know, given some specifications like can we map out a?  
Rough cost estimate for a barracks and a facility.  
You know, whatever it is and then.  
Moving along, there's the equipment analysis.  
So you know acquisition.  
You know, equipping people. What?  
Firearms acquisition, what are you paying for ammunition?  
How many bullets do you know how many rounds you need per year?  
Per shooter.  
So you're buying stuff and there's that kind of cost analysis.  
And then lastly, I think some of the stuff that Dan and I do more is think about like labor, you know, market stuff, you're asking people to do things.  
So we're looking a lot at wage rates and occupational mixes among, you know different.  
Workforces and that falls into, like military compensation studies, a lot of our cost benefit analysis relies heavily on, you know, wage rates for different occupations.  
What are you paying? A manager versus a floor worker?  
How many hours of a floor worker's day is spent moving things from point A to point B?  
How many hours of supervision time are required?  
So is that like labor cost piece?  
And I think in that there's a lot of we're relying on the same data sets, a lot of the time.

 **Dan Penoyer** 9:40  
Mm-hmm.

 **David Metz** 9:40  
The BLS B EA data.  
So the Bureau of Labor Statistics, or Bureau of Economic Analysis, put out quarterly tables or annual tables.  
And here is a mix of occupation and wage rates by state.  
You know, that's a data source.  
I'm always going to go to it's, you know, there's new quarterly publications. You know, I usually grab that for every single study.  
So it's it's a repetitive thing. I'm going back to the same authoritative data source and saying, OK, I need this mix of occupations.

 **Todd Helmus** 10:06  
Huh.

 **David Metz** 10:11  
I need an average hourly wage rate for a Carpenter.  
A plumber, a police officer and you know, accountant.

 **Todd Helmus** 10:20  
OK.

 **David Metz** 10:20  
And then start going from there.  
So I think that's the spectrum of cost analysis that I work with going from the you know, the the labor side to stuff, to buildings, to like the engineering quality estimates.

 **Todd Helmus** 10:22  
No.  
And how?  
How common?  
How consistent is the battle rhythm for these different types of studies?  
Is there a? Is there a singular process or generic process that you all work through in trying to work through these things?  
Or does it really vary widely between studies?

 **Brittany Clayton** 10:56  
Brand or for the platform at at brand?

 **Todd Helmus** 10:58  
At Rand.  
Yeah.

 **Brittany Clayton** 11:05  
It's from my experience it's it's pretty varied.  
Sometimes war in really early kind of in the concept development phase and trying to cost out a new technology or a series of alternatives that.  
You know, again from my experience I'm I deal mostly with the Navy, but Navy or the Air Force or the army want to build a particular weapons system platform. That process is very well documented and I can send you some.  
Resources that can be helpful to identify kind of the types of estimates that are generally used when they're appropriate and kind of some of the rules of play that cost estimators are expected to follow through that acquisition of those platforms. Now that varies when you're talking about major.  
Acquis.  
Itions submarines and aircraft, or if you're dealing with putting a like a service contract.  
You know, awarding a service contract so.

 **Todd Helmus** 12:07  
Like how big is the thing you're trying to cost out?

 **Brittany Clayton** 12:09  
There's right.

 **Todd Helmus** 12:09  
Like how big and complex is it?

 **Brittany Clayton** 12:10  
Like how big is correct?  
And there are regulations on acquisition side of the House that define what those acquisition categories are and then what rules you follow for them.  
So like let me share my screen for a second.  
So this is kind of what I think Tom was alluding to earlier.  
Like you know, we get from.  
You start with an analogy, and then as you get more detailed in the project like this is the the life cycle of 1 weapon system platform. It increases in accuracy and and usually in detail.  
But a lot of it hangs.  
On.  
Add the graphic in here.  
A lot of it hangs on just the the acquisition life cycle of.  
This acquisition, this adaptive acquisition framework.  
So each of the things that the services or OSD procure follow one of these pathways, depending on what pathway it resides in. There's a new rule set for when cost estimates need to be done, how detailed they need to be done, who they need to be delivered to.  
Who performs an audit or?  
Supporting estimate for those efforts.  
So that's all pretty well documented, at least on the when you're talking about military services and their procurement of weapons systems.

 **Todd Helmus** 13:48  
Interesting. What is in?  
Yeah. And of course, you might just pipe in whenever you want.  
But what is is there?  
What would you all say is a long poll in the tent in, in the work that you do?

 **Brittany Clayton** 14:02  
Data.

 **Todd Helmus** 14:03  
Getting the data like getting the, getting the numbers data for the things you wanna cost out.

 **Brittany Clayton** 14:05  
Getting.  
Yeah, yeah.  
For for my work, at least it's I could do a lot more if I had access to some of the proprietary data that I don't.  
Often this will start the project and the sponsor will promise.  
Troves of data that we're gonna be able to do the analysis on, and we either never get it or it takes so long to get it that we end up relying on open source information or information that we had from a different, you know, source that we had.  
Access to.  
To kind of supplement a lack of data, for me at least.

 **Todd Helmus** 14:45  
And Thomas, was it you that said that there's a that there's a a few different websites that you consistently go to to pull data?  
Was that you or someone else that said that was David?

 **David Metz** 14:54  
I had.  
I had said that I think and and one of the things I'm thinking of, you know, Project Tom and I have worked on Puerto Rico, the disaster recovery when we were working with the governor to develop a recovery plan, we were asked essentially to rebuild everything a modern.

 **Thomas Light** 14:55  
Yeah.

 **David Metz** 15:10  
Economy does.  
And and cost it out.  
So everything.

 **Todd Helmus** 15:15  
Oh, just everything.

 **David Metz** 15:17  
Yes. So to rebuild every Rd. system in Puerto Rico to rebuild dozens of schools.

 **Todd Helmus** 15:21  
At least they know what they want.

 **David Metz** 15:23  
That were shuttered after the Hurricanes to rebuild hospitals police stations.  
I mean, they had a laundry list of things and said can we cost these out at a crude level?  
So one of the things I'm thinking of is, you know, when we get a database.  
And two examples are like the Craftsman build guide is an industry standard and Rs means is a software like an engineering quality software. We need to find I think as Brittany showed sort of these analogies like you know this is a typical hospital.  
Now let's apply that to Puerto Rico.  
We know things are a little different 'cause. It's hard to get cement in Puerto Rico and it's an island, so you have to import stuff.  
But we need those analogies and one of the data sources I keep going back to it for military projects. Is the whole building design guide.  
There's a DoD facilities pricing guide and often look for those analogies and say.  
You know the army wants to build a modern fire range.  
Let me go through that and find there's a dozen prototype firing ranges in there with project descriptions.  
Which one of those is the closest analog to this new modern firing range? They're they're thinking of.  
And you know that it's a lot of judgment and that's where I don't know if you could do something like bring in more expertise to make those kind of informed decisions, whereas I have, you know, a dozen firing ranges listed here. I don't know much about them.  
But one of those probably looks a lot like the new range that I have in mind.  
So you know, I wanna take that existing data source and extrapolate it to I wanna.

 **Todd Helmus** 17:02  
So you have to use a little bit of St. Smarts to think through.  
Like what is the like where where you pull your numbers from?  
Like, right? Because you have like 6 different ranges and of highly variable costs associated with those because there's they range from small to large.

 **David Metz** 17:14  
Yeah.

 **Todd Helmus** 17:19  
Maybe different types of you know, other things that go along with those and you need to think through what is the appropriate, what is, what is the analogy.  
Were you working with?

 **David Metz** 17:28  
Yeah. I mean, I'm usually relying on subject matter experts at that point.  
That's where you're drawing in interviews and you know you're you're asking things like, what's the target distance you need, you know, for this firing range.  
So we know a pistol range is gonna work.  
You need to fire machine guns there, you know. So we can go through and systematically, like, cut out some of the, you know, bad analogies and get to or what are better, you know, data points to keep in the model.

 **Todd Helmus** 17:52  
Mm-hmm.

 **David Metz** 17:54  
As as we're trying to cost out new things that either didn't exist before and that's way more complex with systems. As Brittany was describing.  
I'm just think very basic like you know, designing a new facility, a new, you know, Army base.  
What do you need there?  
You need barracks.  
You need a firing range. You need, you know.  
These basic pieces.

 **Todd Helmus** 18:15  
So one challenge I think is that the analogy is vary like across the board, depending what you're looking at right from shipbuilding to developing ranges to hospitals and schools.

 **David Metz** 18:21  
Yeah.

 **Todd Helmus** 18:28  
And and then and then trying to think through like where do you focus your, what aspects of those analogies and and data sources do you focus your efforts and how do you tweak them to be relevant to whatever topic you're studying?  
In in the as in the case you described, a school on a on a on an island is gonna be a little bit different than a school on the mainland.

 **Brittany Clayton** 18:53  
And and part of the and part of the art behind that is David was mentioning you know the actual calculations like building the formula to do The thing is pretty straightforward and could be well documented and some you know a model could do that understanding the nuance and.  
The context behind each of those data points in which you collect and which you.  
Make as an analogy and which ones you exclude from your data set because of certain events.  
Or certain just contextual attributes of the data. That's where kind of the art I think kinda comes in with it and it's like where those two meet that really make a nice defendable estimate.

 **Todd Helmus** 19:37  
Hmm.  
Are there?  
So OK.  
So there's, there's, there's. They are, like, figuring out what your parameters are gonna be.  
And then there's the science of actually doing the calculations right.  
How? How? How long?  
Like how complicated are the?  
How complicated are the calculations?  
How systematic are they across different projects?

 **Brittany Clayton** 20:09  
From my world it's it's fairly straightforward.  
There are a few concepts in my world of cost estimating that use some more advanced mathematical computations, but a lot of it's regression linear regression.  
Developing what we call a CER or a cost estimating relationship, where you're looking at the cost of a system divided by the weight of that system.  
Or the, you know, the cost of manpower divided by the number of people you have on your crew.  
You know, so it's it's coming up with these relationships that you can then apply to the new system that you're trying to estimate in the future.  
That's all pretty straightforward.  
I think we would probably say that we spend more time developing those cost estimating relationships than actually doing the math to get to the answer.  
But there's also.  
Always that post analytic churn as well.  
You know you get an answer, everyone.  
Kind of agrees with your methodology, and then you show the answer and it's like, well, wait a second. That's not really what I wanna do to do. The crew is not that big, you know.  
So there's always kind of that post.  
Analysis discussion as well.

 **Todd Helmus** 21:28  
OK, so interesting.  
So where where?  
So where?  
Where do you guys do you guys see opportunity across either of these two like I think you described now three phases on these things?  
Where automation could be could be helpful.  
AI could be helpful.  
A magic button could be helpful.  
Where where is.  
To what extent does opportunity lie in that?  
That would be helpful to your work.

 **David Metz** 21:59  
I see there's repetitive stuff, which is I you know, I'm always using the same data like regional cost factors.  
One thing I'm always gonna pull the army. You know, DoD has its own cost factors or, you know, look at geographic cost factors.  
Know what cost more to build on on a coast than the South?  
You know, I think there's things like there's, there's just, there's repetitive data, things that where I'm always gonna use the same data. But then there's more of the finding the right analogy, which I think is more challenging.

 **Todd Helmus** 22:18  
Are there limited?

 **David Metz** 22:29  
And I don't know what.  
You know things that can scan large databases like you know what's a construction cost of a hospital for every state. And you know, here, here's, you know, do you have tools that can scrape that kind of information? If you gave it certain parameters like like that?

 **Todd Helmus** 22:51  
Yeah, I would imagine that if.  
That that one could scrape those things, right?  
I mean, if they exist, if they're publicly available, then they're scrapable.  
I would imagine that you would.  
You could sort of input all that into a large language model.  
So you have a very tailored model that you might be able to query.  
Is that the kind of thing?

 **Thomas Light** 23:18  
Yeah, I think like curating data sets, like creating data sets for you or merging disparate data sets together in a way that like is analytically usable could be a really powerful application. I think of AI.

 **Dan Penoyer** 23:24  
Mm-hmm.

 **David Metz** 23:25  
Mm-hmm.

 **Thomas Light** 23:36  
For cost analysis, but I think it would touch way beyond cost analysis.  
We use data in all sorts of contexts and creating the data set as often times harder than the analysis that you do. Once you have the data set.

 **Brittany Clayton** 23:42  
Yeah.

 **David Metz** 23:48  
Mm-hmm.

 **Thomas Light** 23:50  
And so.  
For me, I think I'm not very savvy yet with like grandchat, but I've heard people using it to create datasets and I think that could be incredibly valuable.

 **Todd Helmus** 24:06  
So like containers that I'm I can mention like like a single data set that you continue to build on. Like if you have a new new cost and a new topic area, then you're probably going to find new sources of data for that.

 **Thomas Light** 24:07  
Use of data.

 **Todd Helmus** 24:20  
But then maybe finding a way to input those into the model that then you could query.

 **Thomas Light** 24:26  
Yeah, like, well, another example is like there's been times where the data exists.  
It's just spread across like thousands of PDF files.

 **Dan Penoyer** 24:35  
Right.

 **Thomas Light** 24:35  
No one's got the resources to actually go through and manually curate the data set that you would, but in my mind, if AAI is smart enough and you can give it some.  
You know you could get it to do it for you.

 **Todd Helmus** 24:51  
You go hunt for it.

 **Thomas Light** 24:53  
Well, you get the AI to go pull the pieces out.  
That you need. I don't know how you train AI.  
To do that is the problem, but I I I've heard people.

 **Dan Penoyer** 25:03  
I've had some success using ranchat with like a couple of like 200 page reports and said like I haven't asked it to like print me a table just like I I don't necessarily trust it to be that reliable but say like point me to where in this.  
Document X exists or Y exists, and then sometimes if it points you in the right direction, you can say like table 6.2 like I need to just put that into Excel or like make it like a CSV or something like that that I can copy past.  
Somewhere and.  
It has done a decent job of that and I would just say like going back to like the data concerns problem like like Brittany was saying like sometimes this data exists somewhere, but you're not gonna get access to it. And the only place it exists is like certain.  
Parameters or like output is reported in this 500 page report somewhere. So it's like a question of how reliably can you get.  
A AI tool to put that on a usable format for you.  
Rather than that however many hours it would take of pretty menial work.

 **Todd Helmus** 26:04  
Mm-hmm.

 **Thomas Light** 26:06  
Brittany, your your effort to try and sit like create a data set out of all those budget documents like I don't. I don't know if AI has ever been useful in that, but I'd be so curious if you've been able to get it to do the hard work.

 **Brittany Clayton** 26:12  
Hmm.

 **Thomas Light** 26:19  
For you like pulling the numbers together and arranging it in a way that is.

 **Dan Penoyer** 26:25  
And like, especially if you've got a report that comes out every year and like you don't have any in the background data, having something that would be able to take a similar structure from 10 years of budget reports or something like that and put it all into a.  
A time series database would be pretty crazy helpful.

 **Todd Helmus** 26:44  
Hmm.

 **Brittany Clayton** 26:45  
Yeah, we've been working on this this project for a few years now.  
There's the Comptroller posts what's known as the president's budget exhibits across all the appropriations that DoD uses at varying levels of detail. But some good material in those books that I leverage all the time.  
And we're actually just working on scraping all of that from the very ugly PDFs which are.  
Mixes of tables and text and kind of inconsistent format to get it into some sort of more usable CSV file or Excel file that would allow you to get to your analysis much more quickly.  
So we have that effort going on right now.  
We're focusing on the RDT and E budget for the Navy and actually just had a pretty big breakthrough last week. We found a lot of the files already in Excel.  
So we're starting to move out on that, so.

 **Todd Helmus** 27:52  
Do you use Rin?  
Do you use?  
Have you tried to use a needle in the ranch at any of the other models to help with that process or not yet?

 **Brittany Clayton** 28:07  
Not Rand chat, but I had a few programmers that were working with some other tools to lift.  
The tables out of that PDF and get it into a a usable format.

 **Todd Helmus** 28:22  
Like a programmer helped like pull something together.

 **Brittany Clayton** 28:24  
Yes. Yeah.

 **Todd Helmus** 28:27  
All right, so.

 **Brittany Clayton** 28:27  
Yeah, this way beyond my abilities.

 **Todd Helmus** 28:30  
Roger that. I mean, so I see. So two sort of main tasks is a pulling the data together in one place and then being able to search that data and pull out the numbers and the data that that you need within that in a way that's reliable.

 **Dan Penoyer** 28:45  
Right.

 **Todd Helmus** 28:46  
Imagine Accuracy's kind of important to what you guys do.

 **Dan Penoyer** 28:50  
Oh that.

 **Brittany Clayton** 28:52  
Yeah.

 **Todd Helmus** 28:53  
Mems a qualitative guy, so I can make stuff up half the time so.

 **David Metz** 28:56  
Mm-hmm.

 **Todd Helmus** 28:58  
It's a little bit different for you guys, I think.

 **Brittany Clayton** 29:01  
The the other thing too, I think AI may present some interesting opportunities is that you know, while I don't think and this is me, just trying to preserve my job, but I don't think AI could do exactly what we do tip to tail as cost estimators, it may.  
Be a really good way to do some cross checking and have AI develop a model and then you know we develop a model and see how we compare and.

 **Todd Helmus** 29:29  
Move.

 **Brittany Clayton** 29:30  
That may be a really informative exercise to put us all out of jobs.  
But it may be a really helpful exercise to just articulate.  
Like, here's the process that generally we would follow as cost estimators and how does the technology reproduce that?  
And then compare.

 **Todd Helmus** 29:50  
Do you see?  
Do you see a point where it could actually create the model I mean?  
God forbid. Maybe do it.  
Do the process from start to finish where?  
Like it?  
Not only pulls it together, pulls the documents together, pulls the numbers out, and then runs the analysis on them.

 **Brittany Clayton** 30:10  
From my experience, until and unless DoD gets all of their data in a more organized way, I think that's gonna be difficult to do.  
Because I open up a dozen files from a bunch of different places, some are sitting on my desktop and some are out in the ether to build something that is cohesive and makes sense.  
To a point.  
And I bet we all do that. You know, the four of us on this call probably all do that slightly differently.  
So I don't know.  
That would be my thought.  
Like until until DoD gets their digital acquisition initiative mature enough.  
That data is housed in a organized way.  
I think it'll be difficult.

 **Thomas Light** 30:57  
Yeah. I just to pile on that. I I feel like at Rand at least the cost analysis we do is typically not like repetitive like we don't do, we don't update the the cost estimate every year like for a client we typically we're doing cost analysis in differe.  
Contexts and it sort of changes it in the consulting world.  
There's a lot of people who like, you know, they get paid to update their prior work and in which case they're using.  
Same method, but like it's literally just adding some more data, running the numbers again.

 **Todd Helmus** 31:29  
Hmm.  
There is a very rote process.

 **Thomas Light** 31:34  
Yeah, and but at Rand I we're, I think we do a lot less of that because our project slight changes every year like we we don't have.  
A10 year contract to maintain some cost estimates and update them routinely. If we did, then I think there's the potential to automate with AI.  
The methodology.

 **Todd Helmus** 31:59  
You actually could train the model in in that in that very particular cost paradigm and then just have it go and reenter the numbers.

 **Thomas Light** 32:03  
Yeah.  
Yeah, but we don't do that much. I don't.  
Or I don't do that, at least very much.  
I don't.  
Every cost project I do is sufficiently different enough that I believe it's a totally different methodology or data set.

 **Todd Helmus** 32:17  
Yeah, miss.  
Seems like an interesting aspect of what you all do that it varies.  
So much so widely, across different projects.  
Are there other areas that are there other areas in your life that ran where you could see see value in in AI supporting different tasks that you do, if not necessarily cost analysis?

 **David Metz** 32:48  
The one area I can think of directly is medical documentation and medical records, which are often handwritten and you need to. You know, I had a project where we're walking through 20,000 medical records written by hand, and we wanted to know what surgery was performed.

 **Todd Helmus** 32:57  
Hmm.

 **David Metz** 33:08  
And it was wild.  
You you had to people manually do it.  
This was 10 years no 15 years ago. I don't.  
But you know, thinking about that.  
You're it's oily, just reading, you know, handwritten nurse notes.  
What operation was performed on this patient?  
In creating a database of it and that's where I see something like these automation can do that a lot better match handwriting.  
Create a data set that can they can use and you know. Then you have you can do your statistical analysis.  
You know, 90% of surgeries were in this bucket and and so forth, but but that was a wild like, you know, people had to do that manually.  
Really. Just, you know, 10 years ago and I'm sure there's a lot better ways to do it now.

 **Todd Helmus** 33:50  
Huh.  
And yeah, yeah. And the handwriting, I can only imagine me that pain in the \*\*\*\*.

 **David Metz** 33:57  
But all that.  
All that Rand health stuff.  
I imagine there's stuff where you're dealing with an industry that has a lot of written records and think about things that can scan those and put them into data form.  
That are usable.

 **Todd Helmus** 34:13  
What else?  
Any other areas across your workspan.

 **Dan Penoyer** 34:22  
Think I don't know.  
Like maybe this is just not feasible at the time, but like having having it be smart enough to like get a really good structure down for like proposal writing quickly feel like for everyone proposal writing is always pretty tight and like if you could like feed it in.  
RFP and like here's 5 things I wanna do.  
Like this method with this this method with this data from here and like actually have it.  
Be intelligent enough?  
I don't know if it just needs like a bigger.  
If that's as simple as just like feeding in all of the proposals that we've already written.  
And like seeing if it can find.

 **Todd Helmus** 34:58  
Yeah, I've heard that before.

 **Dan Penoyer** 35:00  
Yeah, like, I feel like that would be awesome.

 **Todd Helmus** 35:03  
Yeah, that's been mentioned, I think in a couple different calls that especially given a lot of proposals have sort of a formulaic process of like here's the problem, here's what's been done before.

 **Dan Penoyer** 35:11  
Right.

 **Todd Helmus** 35:13  
Here's what's not been done.

 **Dan Penoyer** 35:15  
Right.

 **Todd Helmus** 35:15  
Here's what we do now that's different.  
And this is the benefit you'd get from that, right?  
I mean, almost every proposal sort of walks through that process in varying detail.

 **Dan Penoyer** 35:19  
Right.  
Yeah, and like I've tried to use it before like ranch at and it's pretty much just been all fluff and like, has it really been helpful?  
So I don't I feel like I kind of thought it might be better at it than that, but maybe that's just my expectations are a little too high.

 **Todd Helmus** 35:39  
Yeah. No, I feel you.  
I think also I've heard like creating tailored some sort of tailored model that does input prior proposals, especially ran proposals, then it could learn how to how to do that.  
Of course it had.

 **Dan Penoyer** 35:51  
Right, like some of its boilerplate Rand stuff.  
Like, here's what we do and who we are.

 **Todd Helmus** 35:54  
Yeah, I'd have to connect it to data on on the web, which I think is probably the harder part of it where it can get messed up a little.

 **Dan Penoyer** 35:59  
Yeah.

 **Todd Helmus** 36:03  
Maybe a little bit, but I think the more tailored you can create these models, the better they are.

 **Dan Penoyer** 36:04  
Mm-hmm.  
Yeah.

 **Todd Helmus** 36:09  
Anything else?

 **Brittany Clayton** 36:11  
I was.  
I was interested in trying that Grammarly pilot, but I everything I do is cui so I wasn't able to participate, but something to help me.  
Organize my thoughts in chapters or help me you know, identify.  
A solid flow or outline to a report would be helpful.

 **Todd Helmus** 36:36  
Yeah. I'm yeah, yeah, that some of the remark that it's surprising that Rand is not fully adopted Grammarly to whatever risks that might pose, but.

 **Brittany Clayton** 36:42  
Yeah, yeah.

 **Dan Penoyer** 36:44  
OK.

 **Brittany Clayton** 36:45  
And another thing.

 **Todd Helmus** 36:46  
We're all writing. We're all writing stuff.

 **Brittany Clayton** 36:48  
Right. Another thing and I'm not sure if this exists or not, but in some projects I do like a series of interviews with people and take a bunch of notes and then I spend a ton of time reorganizing those notes and calling out major themes and like and.

 **Todd Helmus** 37:05  
Yep.

 **Brittany Clayton** 37:06  
I know that toes the line with the HSBC stuff, so we don't want to be putting people's quotes in in software packages and stuff, but.  
I would love to be able to upload a dozen sheets of notes from various interviews and have AI.  
Tell me, what are the major themes that are coming through and and some of those findings?

 **Todd Helmus** 37:27  
So Ren, so just FYI, Ren does have an emerging capability on that.

 **Brittany Clayton** 37:31  
Yeah.

 **Todd Helmus** 37:32  
It's called muse.

 **Brittany Clayton** 37:34  
OK.

 **Todd Helmus** 37:35  
And you can search, I can send you the link to it, but yeah, you can upload your interview notes.

 **Brittany Clayton** 37:38  
Kevin.

 **Todd Helmus** 37:40  
I've not figured if you can add cui stuff to it, but you can upload your interview notes and it will.

 **Brittany Clayton** 37:40  
OK.

 **Todd Helmus** 37:45  
It does something with it to give you themes.  
How accurate it is?

 **Brittany Clayton** 37:47  
OK, cool. Yeah.

 **Todd Helmus** 37:48  
I haven't quite figured that out, but they're trying to build out that capability.  
They wanna create a, write a paper on the accuracy of it so people could cite it for studies that need.  
You know that level of rigor?

 **Brittany Clayton** 38:02  
That's a good idea.

 **Todd Helmus** 38:02  
As well as provide more tutorials on it.  
So.

 **Brittany Clayton** 38:05  
Yeah.

 **Todd Helmus** 38:06  
But one of my focus groups was with a group of qualitative people.

 **Brittany Clayton** 38:06  
Cool. Thank you.  
Mm-hmm.

 **Todd Helmus** 38:11  
And so we walked through some of those different aspects of it, so.  
Any risks?  
What risks do you all see out there with with with this charge that RAN is doing for AI adoption?

 **David Metz** 38:29  
I just think everyone sort of mentioned there's a lot of nuance in the in the data and not understanding what you're analyzing.

 **Dan Penoyer** 38:36  
And like thrusting it without verifying it, I think is a huge risk.

 **David Metz** 38:36  
It just puts a huge risk in, yeah.

 **Dan Penoyer** 38:41  
Like if you kind of just let let the output like assume that it's accurate, assume that it's what you need without doing too much verification work.  
I think introduces a lot of risk.

 **Todd Helmus** 38:52  
Yeah, there's value in the intimacy one has with their data.

 **Brittany Clayton** 38:58  
Absolutely.

 **Todd Helmus** 39:00  
Like my when I do interviews with the way I do my qualitative coding is I like read through everything and then I like what you describe, Brittany.  
I'm reorganizing and putting in different places.

 **Brittany Clayton** 39:09  
Yeah.

 **Todd Helmus** 39:11  
In that process of and it'll fit itself is an educational process.  
It would be different just to have it handed to me and then then you got to trust it. And but then you don't know it as well.

 **Brittany Clayton** 39:24  
That's that's the point I was gonna make.  
Is that so many times, you know, you go through the effort for a cost estimate and then you're defending it or presenting it to leadership. You're getting quite kind of hammered with questions and you need to rely on your experience and your work with that data like, oh.  
Yeah, that year was off.  
And why was that off?  
Or like no my data set only went to 2025.  
It didn't include 2020.  
You know, some of those new.  
Detailed questions that we inevitably get. I fear that if I were relying mostly on AI to give me some answers, I wouldn't have the familiarity with the data closely enough to trust myself to defend the numbers I'm presenting.  
So I think there's a risk on like the the back end, not just trusting what AI gives you, but knowing the stuff enough. If you're relying on AI in order to, you know.  
You know, get it across the finish line or defend it or appropriately document it.

 **Todd Helmus** 40:31  
Yeah, no.  
Yeah, I feel you there.  
All right, those are my main questions.  
Anything else I'm missing? Anything else to add?

 **Brittany Clayton** 40:45  
Can you? I just pulled up your.  
Your two page no.  
Is this a?  
Is this a Rand internally ran funded effort to like just?

 **Todd Helmus** 40:54  
Yes, yes. Bill Marcelino.  
Yeah, the background on this is that, like Bill, Marcelino and the crew that I called it, that Rand AI initiative I just made that up.  
Bill Marcelino as and a few others that are working on developing programs that ran they've they've created some programs like shooting from the hip like, oh, this would be a good thing to do or this would be a good thing to do and they wanted something ground up.

 **Brittany Clayton** 41:20  
Mm-hmm.

 **Todd Helmus** 41:21  
To think through the the broader way of methods at Rand.  
What are involved in those methods?  
Which are high profile and high potential.  
In order to think about more systematically about investments.  
So that's that's the background of it, yeah.

 **Brittany Clayton** 41:37  
Very cool.  
I would say from like a broader not just a cost lens but broader like acquisition lens, there are some annual reports that DoD issues like selected acquisition reports and the President's budget documents that I mentioned that the Comptroller has on its website, there are a few others.  
That are in that same vein, where it's really like programmatic updates that the services give to Congress that have a series of pretty consistent.  
Information that need to be required.  
The quantity of the thing that they're buying.  
Being who?  
The main contractor is that's performing the work.  
What's the schedule?  
How much are they spending on each phase of the life cycle?  
Things like those reports we've I've seen some repositories on those before, but nothing that takes it one step further and gets it all consolidated into one file or one format that you can then start to actually do some analysis on.  
So something like that would be interesting.  
In not only collecting, but also.  
So, you know, having a training AI or having AI kind of crack open that that treasure trove of data that we have back several years or decades.

 **Todd Helmus** 42:52  
Yeah. Do you think do you think that?

 **Brittany Clayton** 42:53  
Worth of that data.

 **Todd Helmus** 42:57  
Do you think that this would that these that these datasets that the model get that the model would get targeted to? Do they need to be curated special for each study?  
I mean, I know for each study you got to add datasets to it.  
Could you create?  
But could you create one large data set with all the cost data for all the different you guys do and then you ask the models to look for just the things that are relevant.  
Or do you?  
Is it? Is it you need?  
A separate data set for the stuff that Britney does, and a separate data set for the stuff that Tom does.

 **Thomas Light** 43:33  
There's cases where there's a lot of overlap. The selected acquisition reports and the present budget, like if someone had the all inclusive data set for those sources, I bet we could both leverage it, I mean.

 **Brittany Clayton** 43:35  
Yeah.  
Totally.

 **Thomas Light** 43:50  
But.

 **Brittany Clayton** 43:51  
And and even taking it one step further, I think there are a lot of projects that would benefit from having that data, but they don't have either the knowledge that those reports exist or the patients to pull it all.  
So I I mean cost is cost is kind of a niche thing that we do at Rand, but really every report every you know most of our projects could or should start with the context of like here's what the government's spending on this thing or here's like.  
The context of the the broader budget.  
Like, here's where we fit in, and that information is all readily available and.

 **Todd Helmus** 44:24  
I would use that for several of my studies easily, but like identifying the cost for different like apricom programs is like where do I even get it?

 **Brittany Clayton** 44:26  
Yeah, totally.

 **Dan Penoyer** 44:27  
Hmm.

 **Brittany Clayton** 44:28  
So even.  
Exactly. And even if just having that information in a repository that researchers are now aware of or know how to query, I think gives everybody a little bit more power.

 **Todd Helmus** 44:43  
Again, can you get real quick?  
Can you tell me?  
Tell me a little bit of a story, either specific or broadly, about the value of cost analysis to to to Rans mission.

 **Thomas Light** 45:00  
Are you?  
Of course.

 **David Metz** 45:01  
I I can just tell you that the Puerto Rico report, I'll go back to because had it not had a cost estimate, it would have been essentially a worthless document.  
It would have been a collection of COA's with no requests for Congress to fund or appropriate, you know, recovery funds to Puerto Rico and a big list of these are 100 things we want to rebuild after the Hurricanes without cost estimates.  
You know, just putting.  
Even crude dollar amounts on it.  
The governor was able to send a report to Congress with the task Puerto Rico needs X million billion dollars to to rebuild for this money. You're gonna get these hospitals, these schools, these roads and it. It really went line item by line item and it was just it.  
Was so valuable for the government of Puerto Rico to have something, not just a wish list of projects, but.  
A cost estimate and and we went further.  
I mean we we identified.  
By potential funder as well. For each of those projects. But getting into that got buy in from the FOMC that has to sign off on all of the budget requests for the, you know, the government. It got a lot of buy in from different stakeholders it including con.

 **Todd Helmus** 46:17  
Hmm.

 **David Metz** 46:20  
Who ultimately appropriated it? You know, probably the the full amount of the request, or a large portion of it.

 **Todd Helmus** 46:29  
That's that's helpful. Anybody else?

 **Thomas Light** 46:33  
I was just thinking about it like so. Ram does a ton of work on helping organizations like the federal government think about how to allocate scarce resources and dollars. Is the currency in which we put oftentimes characterize those resources. And so like the cost piece of it is.  
Really pretty fundamental to.  
The work that we do on helping our sponsors think about how to allocate the resources that they have in a most effective way and that that's one way to kind of think about that's a dimension of the cost work that I think.  
Is.  
Aligns with brands.  
Charter of helping our sponsors and make informed decisions.

 **Todd Helmus** 47:24  
Yeah, I think I think rant's been highlighting your stuff in strategic documents too, right about I think I saw Rand put out a A blog item a few months back on.  
How much money Rand is saved sponsors with the type of work that is done etc etc.

 **Brittany Clayton** 47:42  
I think also a lot of our sponsors are so focused on the program or the project that they're working on and they're, you know, nose is really close to that. Often my my favorite pieces of work at Rand are the ones that look kind of at a Mac.

 **Todd Helmus** 47:42  
So.

 **Brittany Clayton** 47:57  
Level.  
On spending across particular agencies or weapons system growth over time at a really macro level and looks back several decades and says, you know, at a really high level.  
Level here's how.  
Here's some of the phenomena that we're seeing on spending over the course of a few decades.  
It's just kind of really significant research that the government doesn't always have time or resources to do so. Someone like Rand.  
Has the ability to kind of take a step back and we're not close to a particular project and we can provide that kind of zoomed out macro level view.

 **Todd Helmus** 48:39  
Awesome. Hey, guys. That was that's been really helpful.  
I threw the PTN in the in the chat.  
Feel free to charge your time.  
Really. Thanks again.  
This has been educational for me and it's been really helpful to what we do and hopefully hopefully it all gets shared in Rand.  
We'll see what happens to it, but.  
Thank you for your time and insights. All right. Thanks guys.

 **Brittany Clayton** 48:59  
Awesome.

 **David Metz** 49:00  
Thanks Todd.

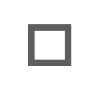
 **Dan Penoyer** 49:01  
Thank you, Todd.

 **Brittany Clayton** 49:02  
Thank you.  
Next time guys.

 **Thomas Light** 49:03  
Thank you K bye.

 **Todd Helmus** 49:04  
All right.

 **Dan Penoyer** 49:04  
Yeah.

 **Todd Helmus** stopped transcription