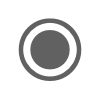
**Transcript**

May 1, 2025, 12:15PM

 **Yuliia Storm Larsen** started transcription

 **Yuliia Storm Larsen** 0:03  
In 14 days.  
And the only thing left is the validation technique.

 **Anders Puck Nielsen** 0:06  
Yes.  
OK.  
Yeah, it also seemed.  
I mean, I mean, I must admit I did not read the whole thing, but it's it also seems that it was quite quite done.

 **Yuliia Storm Larsen** 0:23  
Yeah, because I already had the few rounds of interview with healthcare professionals in Denmark and I also had the questionnaire, some answers from Ukrainian specialists and it was very, very was interesting to see in comparison.  
To the Danish digitalisation.  
Progress and Ukrainian digitalisation progress because it seems some of your videos about smartphones impact on the hybrid warfare, and I was very amazed.

 **Anders Puck Nielsen** 0:55  
Mm hmm.  
OK.  
Well, that's that's nice.  
So so you are from Ukraine and you study at ITU.

 **Yuliia Storm Larsen** 1:03  
Yeah.  
Yeah.

 **Anders Puck Nielsen** 1:05  
Yeah. OK.  
And and are then comparing the healthcare services in yeah.

 **Yuliia Storm Larsen** 1:13  
So basically my research was mainly on the impact of the hybrid warfare on Danish.  
I would say, like cultural aspects.  
So the emerging cyber warfare in Denmark.

 **Anders Puck Nielsen** 1:22  
Mm hmm.

 **Yuliia Storm Larsen** 1:27  
But due to the some of the limitations on my research I only conducted, I would say a deep research into the healthcare region because I was working as a clinical. So therefore I had access to the whole security.

 **Anders Puck Nielsen** 1:41  
OK.

 **Yuliia Storm Larsen** 1:44  
Security the effort was very, very interesting to see the whole difference.

 **Anders Puck Nielsen** 1:51  
That that makes sense.  
It's it's better to focus on something and it's limited how much you can get done.  
So yeah, so that that makes sense.  
All right. But I don't know.  
I don't see myself really as a cyber expert, so I'm kind of curious what you will, what you will ask me but it's.  
Happy to help if if there isn't, yeah.

 **Yuliia Storm Larsen** 2:13  
But.  
But I would say that like I I'm really interested about your opinion about the whole hybrid warfare tactics that Russia right now implements in Ukraine.

 **Anders Puck Nielsen** 2:23  
Mm hmm.

 **Yuliia Storm Larsen** 2:25  
So basically.

 **Anders Puck Nielsen** 2:26  
Mm hmm.

 **Yuliia Storm Larsen** 2:27  
My first question will be how do you think Denmark could fend the hybrid warfare that Russia performs right now in Ukraine?

 **Anders Puck Nielsen** 2:38  
How Denmark could deal with that?

 **Yuliia Storm Larsen** 2:39  
Yeah.

 **Anders Puck Nielsen** 2:43  
First of, the interesting thing about hybrid warfare is that it's not really that necessarily that connected to other types of warfare in the sense that you can have it.  
While you have peace and there can still be these hybrid warfare things.  
Or you can have it while the war is very hot, like in Ukraine right now. And and it's still happening.  
There is still cyber attacks, so it's something that is somehow going on all the time.  
And of course, there will be different intensity.  
So I think Ukraine is obviously a very big target for the Russians here, but.  
I think Denmark is also under a lot of, you know, the constant cyber attacks.  
So it's something that Danish professionals will also have to work with constantly.  
And one of the I don't know. I I'm not sure exactly where to go about it, but but I can just say something and then you can see if if if that makes sense.  
So.  
One of the interesting things about it is you have this whole problem of attribution in cyberspace, right?  
So it's not necessarily clear for the Danish authorities or the Danish, you know, cybersecurity experts who they're up against and.

 **Yuliia Storm Larsen** 4:02  
Yeah.

 **Anders Puck Nielsen** 4:07  
Even if they see that this is coming from Russia, then it's not clear, is it?  
Is it some, something state sponsored or is this just a criminal group or and you see this blurring of lines also with?  
The.  
Whole private actor kind of involvement in warfare, that it's very that is very clear in cyber in cyber war that that we see that a lot.  
So it's it's interesting in the sense that some of the effects that we otherwise would talk about in war or the way we also have private groups engaging in war and types of guerrilla warfare in Africa or things like that, like some of those dynamics we see.  
In cyberspace, because we have the private actors that also benefit from the.  
This this war that's going on, and they might even get some money out of some of these attacks that they make on Danish companies and and so forth so.  
I don't know.  
It's definitely an area where the the conflict is much more hot.  
Than many people think.

 **Yuliia Storm Larsen** 5:22  
How would you comment on the Russia simulaneous hybrid warfare tactics?  
At first, they attacked the the digital systems of Ukraine and a few hours later Zain waited it physically.  
How would you I would say comprehended it?

 **Anders Puck Nielsen** 5:43  
It's. Yeah, it's it's often been talked about that also in in modern war, the 1st wave of attack will be in cyberspace.  
That just makes sense.  
You know, if it's, it's an easy way to create some kind of chaos and then you can move in and exploit that moment of opportunity that it gives, I think.  
It's it's Ukraine. Seem quite prepared for it. So I don't think it had the effect that the Russians had hoped for.  
Umm. And probably that is also because of the history with eight years of war with Russia leading up to this, and there have been some very bad cyber attacks on Ukraine before, so I think.  
The Ukrainian cyber defense was quite prepared for the situation, so it doesn't seem that it had the kinds of effects and I would say All in all, I think the effects of cyber warfare have been more limited during the the the full scale invasion.  
And then many people had thought it would.  
People thought this is this is going to really have devastating effects, but I don't think we've seen that.  
We've seen some attacks but.  
In in general, Ukraine has managed quite well with it, I think.  
So so it does show that if you are prepared, then maybe cyber is not, you know, the bullet that will decide all future wars, right? But.  
It is an area where these things are going on all the time.  
It's also been interesting to follow how I mean.  
This is not. This is not what I follow every day on a daily basis, but I have noticed that also Ukraine has also engaged with offensive sort of activities and different private actors and groups that have been encouraged to, you know, if you want to help some in.  
Some way you could.  
You could go this way, right?  
So we we've seen quite a battle playing out.  
There.

 **Yuliia Storm Larsen** 7:57  
How would you comment on Danish preparedness level?  
Or is it hybrid warfare?

 **Anders Puck Nielsen** 8:05  
I think it's really difficult to say when we talk about something like cyberspace because.  
It's it's, it's, it's not really that it's it's not easy to know if you're not an insider, right? Where, how. How ready are people and people are definitely not prepared to talk about it.  
So I think it's it's hard to say.  
My impression is that what's driving it in Denmark is more concerned.  
Learn about, you know, criminal activity and being hit by by those kinds of attacks.  
But really, the distinction is not very clear.  
So if you're good at that, then you might also be prepared for the other thing, right and.  
So I think it's definitely something that, that, that is being taken seriously.  
That is my impression, but it's really difficult to quantify and I would not be surprised to learn that we have some massive.  
You know, security holes that can be exploited if the Russians really want to.  
So but but I I hope it's not.  
I think you know when we when you, when we talk about hybrid warfare in general and that's of course wider than just cyber.  
When one of the points is that to to defend against this, you don't the the number of vulnerabilities is so high that it's impossible to protect to defend yourself against everything.  
So some of it is also to just have Brazilians have the ability to when when there is an attack that you can.  
You know, quickly repair things so you get up and go up and running again before the consequences are very big or you have alternative ways of doing the same things right? So.  
If if they do hit the electricity grid in some way, then there is another way to get electricity to the to to to people. If if there is an attack on one system, then there is another system.  
So so having this redundancy is very important and the ability to quickly fix things when they are broken because I think inevitably something will be broken.  
I would also kind of assume that some of the attacks that do happen on Denmark are probably from Russia already, but that the the authorities are not really interested in talking about it so.  
You know when TSB is not able to run the train?  
Or something because something happened and they say that.  
We just had a malfunctioned and nothing indicates that this was anything. You know, I think there is a likelihood that it probably was because it's not something you really want to talk about.  
So my impression is that that that these people here on the edge of of this in Denmark actually do feel that they are confronted all the time and they're challenged all the time.  
So they're kind of I I don't think they're sleeping their way through this.  
I think there are probably other challenges, but but if we talk about the Russian threat, then I I do think it's something they take seriously.

 **Yuliia Storm Larsen** 11:22  
How would you comment on the fact that digitalization supplements the hybrid warfare and general military tactics in order to kind of, you know, like?  
Help the opponent to find you. So for example like I know that you had an interview about smartphones helping in the military tactics.

 **Anders Puck Nielsen** 11:43  
Mm hmm.

 **Yuliia Storm Larsen** 11:50  
Can you talk a little bit about that?

 **Anders Puck Nielsen** 11:50  
Mm hmm.  
Yeah, sure.  
I mean, all this information technology is changing the way that war is being conducted and it's on so many levels.  
So it's the technology that's driving the drones, right?  
It's the technology that means that you can you can have these good.  
Battle Battle space management systems like Delta for example. You have in Ukraine.  
These things run in these devices.  
Is uh, it's also this device that allows ordinary citizens to contribute to the war fighting if you see.  
Maybe not so much right now.  
It's kind of static, right?  
In the early days, people would be woah. There is a Russian tank.  
Let me take a picture of that and send it into somewhere.  
And there is a telegram bot where I can do that right and.  
You know this this technology becomes something where you can involve the all of society in the war fighting and that raises all kinds of questions about.  
Who's a combatant and who's a civilian?  
And so there are all kinds of legal questions with this, but it's something that is enabled by this technology.  
And you also have this device that you can communicate with and so so there is something interesting about this device that you have that at the one time.  
Is this super handy computer where you can have you can run delta and you can have maps and exchange messages, but you can also use it to to take pictures and insert stuff.  
Into this and you can also get your news through this device and you can comment on it and share stories on social media.  
And so it's really in so many ways changing.  
The how war is being fought and then you get into the whole, you know, information, war thing, which is not really cyber.  
I see it as something but it, but it happens in cyberspace, so it's still very related.  
So, so definitely this technology is changing.  
All of warfare and is also contributing to this very the situation that there is right now where neither side is really able to do anything because both sides have very good situational awareness, for example.  
So that's really challenging the military in that sense.

 **Yuliia Storm Larsen** 14:25  
How would you comment on the Danish military situation right now?  
Are people aware of the risks that digitalisation brings into the not only the cyberspace, but also into the physical space?

 **Anders Puck Nielsen** 14:43  
I.  
I don't know.  
You mean the military or you mean Danish society?

 **Yuliia Storm Larsen** 14:48  
Out.  
I would like if you can comprehend in both.  
So how's the Danish motor in Danish society?  
Kind of differ in terms of like understanding like what is actually going on. So like if if any factors differ between them.

 **Anders Puck Nielsen** 15:00  
Hmm.  
I think I don't know.  
I think in general there is.  
I think there is a pretty good understanding of those kinds of threats that we're talking about.  
From, for example, Russia or criminals or or these things and also?  
In the Danish military, I would say there is also a it pretty digital kind of modern.  
Kind of force.  
I think there is something about understanding the consequences of that.  
Don't know if you've seen my latest video about drones and the effects that drones have on the battlefield.  
I think there is something here where people still see this technology as something that will make us better at these rapid manoeuvre warfare and these kinds of, you know, very sort of agile concepts and we're going to take this technology and we can have the commander just running.  
Around with his phone and making the best decisions because he has the complete picture of everything.  
And then what we see in Ukraine?  
Only use. This is actually kind of the opposite, that what this technology does is that it has the opposite effect, that nobody can do anything, because the moment you start moving, then you know you're hit.  
So.  
I'm not sure people here really have understand, have understood the full effect that it will have on warfare, but I think in general they do.  
They are open to adopting this technology and using it and seeing the potential.  
In it.  
So in other in society, I think.  
I mean the the part that I'm more concerned about would be things like the dependency on on American technology and all these discussions that are coming up now and digital sovereignty and you know these kinds of.  
How? How?  
You know, there are some weaknesses there and.  
Both in terms of you know, and we trust the Americans, but also there are some weaknesses where I think we saw that with this.  
What was it called this one?  
Where there was this all the all the Microsoft machines stopped working for a couple of days and you know these these things that.

 **Yuliia Storm Larsen** 17:19  
Yeah.

 **Anders Puck Nielsen** 17:24  
There are some problems there when you have.  
The whole country.  
On basically running Windows and so but.  
Yeah, but, but if we just look at attacks from Russia, I think I think most people are kind of aware of what's going on.

 **Yuliia Storm Larsen** 17:46  
How would you comment?  
You mentioned that Danish sovereignty in terms of digital development.  
How would you comment on the development of the geopolitical tensions between Denmark and?  
Ex friendly nations such as us, for example, this year there is a lot of tension between Denmark and us. How would you say that?  
The military world started to react.  
And maybe some precautions were made because, for example, Ukraine were not fully understanding before the actual invasion that Russia was doing something everyone were.  
So I would say unaware of the whole situation.

 **Anders Puck Nielsen** 18:31  
Mm hmm.

 **Yuliia Storm Larsen** 18:32  
What is going on? How do you comment on Denmark and how it develops this awareness towards friendly nations that becoming very tense?

 **Anders Puck Nielsen** 18:40  
Mm hmm.  
Yeah, I'm not sure how.  
I think.  
Most people probably still haven't quite understood the consequences of this.  
What the effects will be, and I think part of it is also just the people have we have had this American security guarantee for so long that people have started.  
Taking it for granted and then suddenly.  
You know, it's gonna take a while before people understand that if the American.  
Here to protect us. What? What? What will that mean? And that will embolden Russia in ways that are really dangerous and and those things. I don't think people have quite understood it yet, but it's also really difficult when things are moving so quickly as they are.  
So yeah, but it's definitely, yeah, a bad situation.  
Yeah. And it's one that increases the risk of conflict.  
In both in Denmark and in other NATO countries, quite significantly.

 **Yuliia Storm Larsen** 19:57  
How do you comment on the collaboration of Denmark with other European nations in order to prevent a maximum threat towards, for example, Asia, like China and North Korea?  
Do you see them as a threat?  
China, North Korea, Thailand.

 **Anders Puck Nielsen** 20:19  
Well, I mean, N Koreans are fighting Ukraine right now.  
It's kind of difficult to not see them as an actor.  
I think.  
I.  
I don't.  
It's difficult to say exactly where things will go because a lot will depend on how things develop with the United States.  
And if there will be some kind of, you know, the the Americans are kind of maybe tone it down a bit and decide that they still want to be allied with Europe.  
If they, if they don't, then you know, I think people will start looking elsewhere and.  
And it might open up some new interesting.  
Yeah. Discussions with China.  
And.  
But yeah.  
I think for Europe it is not really China.  
That is probably the the worst enemy.  
I don't see that. I I I I mean for me, I mean, it's quite clearly Russia I think.  
Yeah. And so we will have.  
We will see how.  
How things go, but.  
Yeah.

 **Yuliia Storm Larsen** 21:34  
Russia Ukraine conflict changed your understanding of the relationship between the conventional military operations and cyber warfare.

 **Anders Puck Nielsen** 21:50  
I I think.  
It's it's interesting because these things overlap in so many ways, so.  
I.  
I mean, I already talked something about the effects of this modern information technology on warfare.  
Cyber warfare is very much going to play a part in that. Also in the sense that you can use that to create an effect locally or in an area where you know just for a period of time.  
So I think we're gonna see these attempts at trying to coordinate these things much more closely than they have been so far. So for example.

 **Yuliia Storm Larsen** 22:23  
Yeah.

 **Anders Puck Nielsen** 22:34  
If Russia want to make some very big attack at some specific point, it might be very useful for them if they can make delta go out for 30 minutes, all right? And they know that this is not a permanent thing. They know that Ukraine will manage to get.  
This up and running again.  
And pretty quickly.  
But it might be enough, right?  
So so I think we're gonna see it very much integrated or these attempts at trying to see how closely can we coordinate these things to create these very local short term effects at the right time.  
So we have this concept called multidomain operations in in the military, which basically is this thing about trying to coordinate these things across different domains and the cyber domain is one of them.  
So it will be something that.  
You know, might be something that enables other types of military operations.  
But it will be very much about fighting the war where you have the ability of being able to leverage all this technology by, but the enemy doesn't at the right times.

 **Yuliia Storm Larsen** 23:44  
Yep.  
What specific critical infrastructure sectors in Denmark would you? Would you kind of like, say that are likely to be targeted first based on patterns observed in Ukraine conflict?

 **Anders Puck Nielsen** 24:05  
I think very often these things are about.  
I mean, there are the obvious ones like electricity and these things, right?  
But I think very often it's also just about.  
Wherever they find the vulnerabilities, that's what they might go for.  
So if that is the water supply, then that's what they will hit, right?  
If if that is, but I think obviously it's these things.  
It's like telecommunications, electricity.  
These things.  
Would be very useful.  
To take out in one way or another, right?  
But very much I think it's it's actually just vulnerability driven.

 **Yuliia Storm Larsen** 24:50  
Which threats do you consider are the most?  
I would say dangerous for Denmark right now.

 **Anders Puck Nielsen** 25:03  
You mean cyber threats or you mean?

 **Yuliia Storm Larsen** 25:05  
Suggestion general.

 **Anders Puck Nielsen** 25:06  
Big.  
Yeah, I think it's it's a very dangerous time overall. I think the risk that that what we have now can develop into a bigger war with where Denmark is also involved.  
Is higher than it has been for many, many years, right?  
I think there is a time over the next, let's say 10 years, where Europe will still be struggling with, you know, not not having.  
Built the forces that we would need because we for so many years did not make the necessary investments and they are being made now, but it will take time.  
So I think there is unfortunately for them. Let's say the next 10 years, I think there is a very dangerous time ahead and depending on how things end in Ukraine, I Russia could be emboldened to continue in other places and challenge NATO.  
And also.  
The next 10 years is probably when Putin will still be there, right?  
And.  
In 10 years time, there might be someone else.

 **Yuliia Storm Larsen** 26:15  
How would you say that?  
The Russian train war affected the whole Europe and the neighboring countries around it.

 **Anders Puck Nielsen** 26:26  
I mean the Ukraine, the war in Ukraine has basically.  
It has already revolutionized changed forever the security landscape of Europe, right the the the security order that was before does not exist anymore.  
NATO is in its deepest crisis.  
Since for 75 years.  
We might be at a point now where you know some people start to argue that NATO is worthless if you know so.  
I I think the war in Ukraine that would not have happened.  
Happened without the war in Ukraine. So. So the war in Ukraine has been this thing that has created this dynamic and.  
We don't know where it will end, but I think we will see some kind of other European security structure where the Europeans will hopefully be able to take responsibility without the United States, and that will also then in in terms of cyber development to.  
Hopefully a bigger focus on digital sovereignty and you know, trying to to get this technology back under our own control and.

 **Yuliia Storm Larsen** 27:35  
Yep.

 **Anders Puck Nielsen** 27:44  
So these are things that would not have happened if there had not been the war in Ukraine.  
Then I'm not sure Europe is ready yet for it, but I hope you know we will get there and that we will.  
See this new security structure emerging out of this with.  
Including Ukraine.

 **Yuliia Storm Larsen** 28:07  
Which recommendations would you give as a military analyst, for example, for researchers to investigate which fields and to focus on which aspects of the warfare in general?

 **Anders Puck Nielsen** 28:27  
I'll I don't know.  
There are so many things right now.  
There's a lot of focus on trying to learn from Ukrainian experiences, so that's what researchers here are very much focused on. And I think that's the right thing and the right way to go and.

 **Yuliia Storm Larsen** 28:36  
Yep.

 **Anders Puck Nielsen** 28:47  
And again, I think also referring to my latest video about the drones that we are seeing, something that is changing sort of the the nature of warfare.

 **Yuliia Storm Larsen** 28:56  
OK.

 **Anders Puck Nielsen** 28:57  
Or the character of warfare.  
How war is fought and we need to understand that and we need to understand that we can't fight the next war with the doctrine that we have been training for many years in in NATO.  
Because it will not work.  
In in with the technology that Russia has now.  
So.  
You know we we need.  
We really need to figure out how can we.  
How can we deal with?  
This technology and continue working. How should? What should our forces look like?  
What do we need to invest in to be ready for this?  
So I think that's the most sort of urgent thing to figure out right now.

 **Yuliia Storm Larsen** 29:43  
What specific indicators or warnings should Denmark be monitoring that might be a signal?  
Of impending the hybrid attack based on patterns observed in Ukraine.

 **Anders Puck Nielsen** 29:57  
I think hybrid attacks happen all the time, so it's not something that will be necessarily.  
I don't know if you're familiar with kilcullen's model for he calls it liminal warfare, but it's basically about different thresholds that you can work with in, in this hybrid space.  
So he talks all about how you have the first thing you need to do is you need to to cross a detection threshold where you detect that something is going on.  
So you see that there is some kind of activity happening, but then the next level is the attribution threshold where you have.

 **Yuliia Storm Larsen** 30:32  
Yep.

 **Anders Puck Nielsen** 30:43  
You know enough about what's going on to be able to say who's actually behind this, who is doing it, and then the last threshold.  
Just the response threshold where you say now you actually have so much information that the politicians can react to it.  
I think the system we need to build is is one where we are able to push things to the top as quickly as possible, right?  
So we need to figure out how do we do that and some of the thresholds are more technical. So the detection threshold for example, you would need technical solutions to this.

 **Yuliia Storm Larsen** 31:09  
Yeah.

 **Anders Puck Nielsen** 31:18  
How do we see that something is happening?  
Especially in cyberspace, but also the attribution threshold is also very technical.  
But the last one the the response threshold is actually more about it's more organizational, it's more about having.  
The the government agencies being able to talk to each other to to know what's going on, to have an understanding of the different problems and being able to understand, OK, if these guys say that this is what they see, then this is what that means for me.  
And so you need. You need to have.  
Procedures you need to have exercises where you practice these things to be able to take it to the level where politicians can react to it.  
So I don't know that would be my very broad sort of recommendation that people should.  
We should focus on those things and remember that we need technical solutions, but technical solutions is not enough. It's also organizational.

 **Yuliia Storm Larsen** 32:19  
Would you say that my project outlines all the?  
I would say like aspects that people should, I would say like be more aware of the cyber warfare and general warfare tactics.

 **Anders Puck Nielsen** 32:36  
I would.  
I did not unfortunately read project.

 **Yuliia Storm Larsen** 32:39  
Oh.

 **Anders Puck Nielsen** 32:41  
Thor only I I sort of read the abstract and it looked really interesting.  
But I I don't know if you outline if there is anything.

 **Yuliia Storm Larsen** 32:49  
Yeah.

 **Anders Puck Nielsen** 32:51  
You really need to look into more, I don't know.

 **Yuliia Storm Larsen** 32:54  
Yeah, fair enough.  
Yeah, but I don't have any more questions.

 **Anders Puck Nielsen** 32:58  
OK.  
Well, I hope you got something out of it.

 **Yuliia Storm Larsen** 33:02  
Yeah, I definitely did.  
Yeah. Thank you so much for your participation.

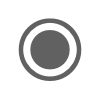
 **Anders Puck Nielsen** 33:04  
OK.  
Hey, you're welcome, alright.

 **Yuliia Storm Larsen** 33:08  
And thank you so much for your time.

 **Anders Puck Nielsen** 33:11  
Absolutely no problem. Have a good day.

 **Yuliia Storm Larsen** 33:13  
Yeah. Thank you so much.  
Have a nice day as well. Bye.

 **Anders Puck Nielsen** 33:14  
Yeah. Bye, bye.

 **Yuliia Storm Larsen** stopped transcription