

Innochat

Risky Innovations

Times shown in: [Eastern Daylight Time](#) and [Coordinated Universal Time](#)

Between **2017 Aug 24 11:45** and **2017 Aug 24 13:15**
10 people sent 146 messages containing #innochat

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11:57:02 15:57:02	John W Lewis @JohnWLewis		RT @kkruise: TODAY coming up at noon ET at #innochat with @JohnWLewis: Managing risks of #innovation. (Triggered by recent moves on autonomy)
12:00:04 16:00:04	John W Lewis @JohnWLewis		Welcome to #innochat! Let's discuss "Risky Innovations"!
12:00:11 16:00:11	John W Lewis @JohnWLewis		For a simple framing of this #innochat topic on "Risky Innovations" see: https://t.co/ZziuZ6DolI
12:02:31 16:02:31	Andrea Villeneuve @DreaVilleneuve		Today's #innochat Jump in if you have a moment! https://t.co/6tBmEodtR4
12:03:09 16:03:09	John W Lewis @JohnWLewis		There are a wide range of risks in innovation and not all are known at the outset. Let's discuss! #innochat
12:03:49 16:03:49	John W Lewis @JohnWLewis		@DreaVilleneuve Hello again, Andrea! A hastily, riskily, assembled topic for #innochat today! ;-)
12:04:08 16:04:08	Carol Stephen @Carol_Stephen		RT @JohnWLewis: Welcome to #innochat! Let's discuss "Risky Innovations"! #innochat
12:04:26 16:04:26	Carol Stephen @Carol_Stephen		RT @JohnWLewis: For a simple framing of this #innochat topic on "Risky Innovations" see: https://t.co/7ieEQCANVc
12:05:01 16:05:01	John W Lewis @JohnWLewis		Q1 How do we identify the disadvantages, and associated risks, of an innovation? #innochat
12:05:34 16:05:34	John W Lewis @JohnWLewis		@Carol_Stephen Hello Carol! I'm taking a leaf out of your book during this #innochat
12:05:42 16:05:42	Carol Stephen @Carol_Stephen		RT @JohnWLewis: Q1 How do we identify the disadvantages, and associated risks, of an innovation? #innochat
12:05:56 16:05:56	Carol Stephen @Carol_Stephen		@JohnWLewis Sounds risky, John! :D #innochat
12:06:12 16:06:12	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Dare I say, without risk, there is now reward. 💎💎 #innochat
12:06:22 16:06:22	John W Lewis @JohnWLewis		Oh heck, you've seen through me already! ;-) #innochat https://t.co/JytrOSLElw
12:06:59 16:06:59	John W Lewis @JohnWLewis		@DreaVilleneuve Who dares wins! #innochat
12:07:33 16:07:33	Lou Hayes, Jr. @LouHayesJr		A1. Just wrote on risk modeling (though diff application of it) yesterday. #innochat https://t.co/CI3oq9OITm
12:08:11 16:08:11	John W Lewis @JohnWLewis		This first Q is to set the scene. Obviously we don't know the risks that we face,... but we find you somehow! #innochat










12:08:18 16:08:18	Carol Stephen @Carol_Stephen		A1. Ask the experts in the field and also use a big pile of common sense! #innochat
12:08:50 16:08:50	John W Lewis @JohnWLewis		@LouHayesJr Hello again, Lou! How are you? Interesting! #innochat
12:09:12 16:09:12	Cale Birk @birklearns		Adopt a "Do then know" approach/prototype with those who will be affected by the solution to begin to ID risks #innochat
12:09:37 16:09:37	John W Lewis @JohnWLewis		@Carol_Stephen Definitely: take advice. But common sense is not very common! #innochat
12:10:01 16:10:01	John W Lewis @JohnWLewis		Q2 How do we evaluate risks of any innovation? #innochat
12:10:18 16:10:18	seempli @seempli		@JohnWLewis Wait till they happen and then take a ride in the DeLorean to put them in the risk plan #innochat
12:10:23 16:10:23	John W Lewis @JohnWLewis		@birklearns Hello Cale! Yes, theory is not enough. #innochat
12:11:13 16:11:13	Carol Stephen @Carol_Stephen		@JohnWLewis So true. It just occurs to me that some barely understand "autopilot," let alone autonomous vehicles! #innochat
12:11:20 16:11:20	Carol Stephen @Carol_Stephen		RT @JohnWLewis: Q2 How do we evaluate risks of any innovation? #innochat
12:11:21 16:11:21	Cale Birk @birklearns		Very useful model - we can take from this in education #innochat https://t.co/HzdBwGlJd6
12:11:38 16:11:38	John W Lewis @JohnWLewis		@seempli Welcome back! Haha! Good plan ...?!? #innochat
12:12:23 16:12:23	Lou Hayes, Jr. @LouHayesJr		#innochat a2. I articulate & discuss risk (not necessarily measured) via this 3-axis model: https://t.co/vBY3PUP3t2
12:13:34 16:13:34	Lou Hayes, Jr. @LouHayesJr		RT @birklearns: Very useful model - we can take from this in education #innochat https://t.co/HzdBwGlJd6
12:13:43 16:13:43	John W Lewis @JohnWLewis		@LouHayesJr I like this model for evaluating risks. But is there, first, an issue of the context in which we find them? #innochat
12:13:46 16:13:46	seempli @seempli		@JohnWLewis Innovative plan... just need to research, create the tech, avoid any paradox, and that's it #innochat
12:14:50 16:14:50	John W Lewis @JohnWLewis		The choice of this topic was triggered by recent discussion on autonomous weapons. #innochat
12:15:00 16:15:00	John W Lewis @JohnWLewis		Q3 When is the most suitable time to evaluate the risks of any innovation? #innochat
12:15:02 16:15:02	John W Lewis @JohnWLewis		Next Q ... #innochat
12:15:26 16:15:26	seempli @seempli		A1 Use your #imagination. Imagine the worst that can happen. Then backtrack to identify risks and their probability... https://t.co/ymVWYCVc9Q
12:15:50 16:15:50	John W Lewis @JohnWLewis		The risks do not always become apparent in the early stages. So there is a timing issue. #innochat
12:16:02 16:16:02	Carol Stephen @Carol_Stephen		RT @JohnWLewis: Q3 When is the most suitable time to evaluate the risks of any innovation? #innochat
12:16:21 16:16:21	Carol Stephen @Carol_Stephen		RT @JohnWLewis: The choice of this topic was triggered by recent discussion on autonomous weapons. #innochat
12:16:34 16:16:34	John W Lewis @JohnWLewis		@seempli Definitely, imagination is important ... as long as it doesn't run away with us! ;-) #innochat
12:16:40 16:16:40	Lou Hayes, Jr. @LouHayesJr		@JohnWLewis Certainly the predictability/linearity of the situation/context matters greatly in how accurate/confide... https://t.co/DpHh7tbsaC

12:16:49 16:16:49	seempli @seempli		A3 All the time! But don't let it drive all the fun out of #innovation #innochat https://t.co/6JCINZ7osR
12:17:13 16:17:13	Carol Stephen @Carol_Stephen		@JohnWLEwis Right? And marketing always reframes the risks as advantages! Hah! #innochat
12:17:26 16:17:26	John W Lewis @JohnWLEwis		Also some risks are time-dependent - they take time to manifest themselves. #innochat https://t.co/IO4gKdy1Yo
12:18:00 16:18:00	John W Lewis @JohnWLEwis		Haha, you mean the bugs are the features that we know about? ;-) #innochat https://t.co/GTQ1qCW7v2
12:18:09 16:18:09	Carol Stephen @Carol_Stephen		A3. I agree with @seempli that risks need to be weighed all the time, from early in the game. #innochat
12:18:23 16:18:23	Human Factors @checklistmedic		RT @LouHayesJr: #innochat a2. I articulate & discuss risk (not necessarily measured) via this 3-axis model: https://t.co/vBY3PUP3t2
12:18:56 16:18:56	Carol Stephen @Carol_Stephen		@JohnWLEwis Yes! It's not that your laptop caught fire. It was merely a "combustion event!" #innochat
12:19:03 16:19:03	John W Lewis @JohnWLEwis		@Carol_Stephen @seempli I agree. OTOH, we don;t want to be put off by risks too early, if they can be handled later. #innochat
12:19:13 16:19:13	Human Factors @checklistmedic		RT @LouHayesJr: A1. Just wrote on risk modeling (though diff application of it) yesterday. #innochat https://t.co/CI3oq9OITm
12:19:16 16:19:16	Lou Hayes, Jr. @LouHayesJr		A3. Risk modeling & forecasting is perpetual, cyclical, non-linear. #innochat https://t.co/xMhYiR8vos
12:19:37 16:19:37	seempli @seempli		@Carol_Stephen Just don't let them obscure your vision #innochat
12:20:00 16:20:00	John W Lewis @JohnWLEwis		There is a lot of background to this on adoption and diffusion. #innochat
12:20:01 16:20:01	John W Lewis @JohnWLEwis		Q4 In what environment, is it most effective to evaluate risks of an innovation safely? #innochat
12:20:34 16:20:34	Lou Hayes, Jr. @LouHayesJr		@JohnWLEwis Yes. Emergence of new variables in unpredictable, complex enviro. #innochat
12:21:06 16:21:06	John W Lewis @JohnWLEwis		This Q relates to fields (e.g aviation, pharmaceuticals) which have regimes for handling early stage innovations. #innochat
12:21:08 16:21:08	Carol Stephen @Carol_Stephen		@JohnWLEwis Right! we must have steady progress. But in the case of weapons? Ugh. I'd be much more cautious! #innochat
12:21:28 16:21:28	Carol Stephen @Carol_Stephen		@seempli For sure. #innochat
12:21:39 16:21:39	Carol Stephen @Carol_Stephen		RT @JohnWLEwis: Q4 In what environment, is it most effective to evaluate risks of an innovation safely? #innochat
12:21:52 16:21:52	Andrea Villeneuve @DreaVilleneuve		@seempli Assess, reassess. And then go back and do it again 🔄🔄 #innochat
12:22:25 16:22:25	John W Lewis @JohnWLEwis		@Carol_Stephen True. But if autonomous weapons (e.g. drones) have overall benefits, then we'd like to adopt them. #innochat
12:23:19 16:23:19	John W Lewis @JohnWLEwis		@seempli True: risks are no fun! #innochat
12:23:35 16:23:35	Carol Stephen @Carol_Stephen		@JohnWLEwis I guess I've been in Silicon Valley too long, and have seen too many silly ideas become reality. #innochat
12:24:20 16:24:20	John W Lewis @JohnWLEwis		It's (quite) well known that as innovations are adopted by successive groups, people become more risk-averse. #innochat
12:24:51 16:24:51	John W Lewis @JohnWLEwis		Haha! If it's not crazy enough, it won't work! #innochat https://t.co/KfDQoc1oxn

12:24:51 16:24:51	Carol Stephen @Carol_Stephen		@JohnWLEwis And also, does anyone else think of RoboCop when you think of autonomous weaponry? #innochat https://t.co/f7fHxZrNHN
12:25:01 16:25:01	John W Lewis @JohnWLEwis		Q5 What courses of action are available to reduce or remove the risks of an innovation? #innochat
12:25:36 16:25:36	John W Lewis @JohnWLEwis		On the other hand, as we gain experience with an innovation, we understand the risks better. #innochat https://t.co/sMFuVjBO34
12:25:57 16:25:57	John W Lewis @JohnWLEwis		Definitely! #innochat https://t.co/uEorT3q96q
12:26:02 16:26:02	Carol Stephen @Carol_Stephen		RT @JohnWLEwis: Q5 What courses of action are available to reduce or remove the risks of an innovation? #innochat
12:26:37 16:26:37	seempli @seempli		A5 Keep your eyes on the destination, but don't fall in love with a specific path #innochat https://t.co/wTcSBbLpNT
12:26:41 16:26:41	John W Lewis @JohnWLEwis		@Carol_Stephen And, of course, many existing weapon systems have a wide range of automatic facilities. #innochat
12:27:11 16:27:11	Carol Stephen @Carol_Stephen		A5. Let the engineers talk directly to the public! Some of those guys are incapable of lying. #innochat
12:28:03 16:28:03	John W Lewis @JohnWLEwis		@seempli Yes, engineering design approaches include tactics for overcoming risks and failures that are discovered along the way. #innochat
12:28:16 16:28:16	John W Lewis @JohnWLEwis		RT @Carol_Stephen: A5. Let the engineers talk directly to the public! Some of those guys are incapable of lying. #innochat
12:29:17 16:29:17	Carol Stephen @Carol_Stephen		A5. In the case of weaponry, I'd say you need complete transparency before unleashing version 1.0. #innochat
12:29:17 16:29:17	John W Lewis @JohnWLEwis		There's a joke about the CEO who complained about the amount of testing being done, because they kept finding more faults! #innochat
12:29:34 16:29:34	Lou Hayes, Jr. @LouHayesJr		#innochat A5. #RedTeaming. Here is @FM_Aubin + @deswalsh discussing: https://t.co/GYrRaNl4Dv
12:29:54 16:29:54	AJ @OkkiPeperoot		RT @LouHayesJr: A1. Just wrote on risk modeling (though diff application of it) yesterday. #innochat https://t.co/CI3oq9OITm
12:30:00 16:30:00	John W Lewis @JohnWLEwis		Q6 How can we remove a specific risk of an innovation completely? #innochat
12:30:19 16:30:19	Carol Stephen @Carol_Stephen		@JohnWLEwis Right? I'm sure that joke was based on a real experience! #innochat
12:30:22 16:30:22	seempli @seempli		@JohnWLEwis It's a documentary, not a joke :) #innochat
12:30:48 16:30:48	Carol Stephen @Carol_Stephen		RT @seempli: @JohnWLEwis It's a documentary, not a joke :) #innochat <<Yep!
12:30:58 16:30:58	Carol Stephen @Carol_Stephen		RT @JohnWLEwis: Q6 How can we remove a specific risk of an innovation completely? #innochat
12:31:17 16:31:17	John W Lewis @JohnWLEwis		@seempli Haha! Yes it happens, although the culture is very different in different disciplines. #innochat
12:31:43 16:31:43	Andrea Villeneuve @DreaVilleneuve		@seempli @JohnWLEwis Truth! #Innochat
12:32:08 16:32:08	John W Lewis @JohnWLEwis		A6 The best approach is to design out the source of the risk altogether! #innochat
12:33:24 16:33:24	John W Lewis @JohnWLEwis		Isn't another way to remove a risk, to not deploy the innovation in areas where the risk is an issue? #innochat
12:34:15 16:34:15	Carol Stephen @Carol_Stephen		A6. Sometimes removing the risk means starting from scratch on design. #innochat

12:34:21 16:34:21	John W Lewis @JohnWLewis		E.g. if your aircraft is not certified to fly upside down, then you don't fly it upside down! #innochat
12:35:01 16:35:01	John W Lewis @JohnWLewis		Q7 If we cannot remove a specific risk, how can we manage it effectively? #innochat
12:35:04 16:35:04	John W Lewis @JohnWLewis		@Carol_Stephen Yes, it can do. However, sometimes, it can be removed by redesign of a subsystem. #innochat
12:35:55 16:35:55	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis You would think - though it seems that's the red cape sometimes. #innochat
12:35:57 16:35:57	Carol Stephen @Carol_Stephen		RT @JohnWLewis: Q7 If we cannot remove a specific risk, how can we manage it effectively? #innochat
12:36:24 16:36:24	John W Lewis @JohnWLewis		A7 The pharma people handle this all the time by countering the side-effects of a drug using another drug! #innochat
12:36:44 16:36:44	Carol Stephen @Carol_Stephen		A7. Send it out to beta testers, collect feedback, redesign as needed. #innochat
12:37:30 16:37:30	Carol Stephen @Carol_Stephen		@JohnWLewis Oh, right! Using another drug to counter the first drug. But what about with weaponry? #innochat
12:39:11 16:39:11	John W Lewis @JohnWLewis		@Carol_Stephen I don't know, Carol. It probably depends on which type of risk are we trying to reduce. #innochat
12:40:00 16:40:00	John W Lewis @JohnWLewis		Q8 Who needs what information about the risks of an innovation? #innochat
12:40:13 16:40:13	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Ultimately would be better to mitigate your risks to needing the drug in the first place. 💎💎 #innochat
12:40:47 16:40:47	John W Lewis @JohnWLewis		I.e. (Q8) Does everyone need to know everything about all of the risks? Probably not! #innochat
12:41:20 16:41:20	John W Lewis @JohnWLewis		@DreaVilleneuve Absolutely! Prevention is better than cure. #innochat
12:42:07 16:42:07	Lou Hayes, Jr. @LouHayesJr		A7. For known & specific risks, 2nd & 3rd order thinking = If-Then contingency plans. #innochat https://t.co/EcG1BuHUT5
12:42:42 16:42:42	John W Lewis @JohnWLewis		For example, in modern aircraft, the systems reduce workload by not telling pilots about low level issues that they cannot remedy. #innochat
12:42:44 16:42:44	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis A7: Contingency for Worst Case Scenario, and work backwards to best case. Plan for critical fail #innochat
12:43:57 16:43:57	John W Lewis @JohnWLewis		@LouHayesJr Yes, Lou. Having procedures and criteria for changing what we do, or aborting. #innochat
12:44:14 16:44:14	Carol Stephen @Carol_Stephen		RT @JohnWLewis: I.e. (Q8) Does everyone need to know everything about all of the risks? Probably not! #innochat
12:44:49 16:44:49	John W Lewis @JohnWLewis		@DreaVilleneuve Yes, Andrea, there are a wide range of "fail safe" systems. #innochat
12:44:56 16:44:56	Carol Stephen @Carol_Stephen		A8. People need to know about the risks that would directly affect them. #innochat
12:45:00 16:45:00	John W Lewis @JohnWLewis		Q9 How and when should we communicate the risks of an innovation? #innochat
12:45:54 16:45:54	John W Lewis @JohnWLewis		E.g. braking systems on many trucks and trains use air/hydraulics to hold the brakes OFF. #innochat https://t.co/OIrehbih7Y
12:46:07 16:46:07	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis I'm in tech - nothing is 'fail safe' 💎💎 #innochat
12:47:18 16:47:18	Carol Stephen @Carol_Stephen		RT @JohnWLewis: Q9 How and when should we communicate the risks of an innovation? #innochat

12:47:23 16:47:23	John W Lewis @JohnWLewis		@DreaVilleneuve True! Perfect safety is not available at any price. But systems can be designed to return to a safe... https://t.co/nXILZ9QjbJ
12:48:05 16:48:05	Carol Stephen @Carol_Stephen		A9. Depends on the innovation, but the more communication the better in my book. #LessIsNotMore #innochat
12:49:13 16:49:13	John W Lewis @JohnWLewis		In general, I agree, but people can also become either blasé or overloaded with information presented at the “wrong... https://t.co/dhI8XmbbYI
12:49:15 16:49:15	Lou Hayes, Jr. @LouHayesJr		@JohnWLewis #innochat A9. As analytically, rationally, objectively as possible, in conjunction w/ action/responses/... https://t.co/oouyabbLBr
12:50:01 16:50:01	John W Lewis @JohnWLewis		Q10 How can we get better at handling risky innovations? #innochat
12:50:25 16:50:25	John W Lewis @JohnWLewis		Definitely, Lou. In a sense, handling the failure situation is just another procedure. Aviation is good at this.... https://t.co/zyRLJjfkYn
12:50:29 16:50:29	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Absolutely. All the planning is just assumptive, even at 99.9%. One wrong/unexpected variable can change risk #innochat
12:50:59 16:50:59	Lou Hayes, Jr. @LouHayesJr		RT @JohnWLewis: Definitely, Lou. In a sense, handling the failure situation is just another procedure. Aviation is good at this. #innochat...
12:52:08 16:52:08	John W Lewis @JohnWLewis		@DreaVilleneuve It can be due to one variable. But, in disciplined fields, accident investigation shows that it usu... https://t.co/gOZF4f9Ous
12:52:31 16:52:31	Andrea Villeneuve @DreaVilleneuve		@Carol_Stephen Depends on the information, as well as the innovation. I believe in more communication but also the... https://t.co/FMpYqZme11
12:52:43 16:52:43	Improliity Software @Improliity		The latest Improliity Dispatch! https://t.co/ifpzKyJfhW #creativity #innochat
12:53:23 16:53:23	John W Lewis @JohnWLewis		@DreaVilleneuve @Carol_Stephen I agree, in general. But, e.g. if you "cry wolf" too often, people tune out. Or you... https://t.co/A55Jz8Qsb1
12:53:40 16:53:40	Carol Stephen @Carol_Stephen		RT @JohnWLewis: Q10 How can we get better at handling risky innovations? #innochat
12:54:03 16:54:03	Lou Hayes, Jr. @LouHayesJr		A10. Learn & practice risk modeling in low risk & low consequence aspects of everyday life. & high risk in tabletop... https://t.co/MLaHGydYaM
12:54:45 16:54:45	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Was more to the accuracy than an actual single catastrophic - though that happens as well. #innochat
12:54:46 16:54:46	Carol Stephen @Carol_Stephen		@JohnWLewis That's true, only a very few will read and comprehend every single release note or update. #innochat
12:55:08 16:55:08	John W Lewis @JohnWLewis		@DreaVilleneuve @Carol_Stephen Accidents in which modern airliners experience major failures have shown that warnin... https://t.co/LvjEpvKAQj
12:55:52 16:55:52	Carol Stephen @Carol_Stephen		@DreaVilleneuve It's a tough issue. Who decides how much information is enough, and when to release it? #innochat
12:56:01 16:56:01	John W Lewis @JohnWLewis		@Carol_Stephen Yes, the dissemination of information about risks and failures needs to be designed to be effective,... https://t.co/p34UA1FSwY
12:56:23 16:56:23	Carol Stephen @Carol_Stephen		@JohnWLewis @DreaVilleneuve And sometimes overloading people with information is a strategy, too. They won't read it all. #innochat
12:56:51 16:56:51	John W Lewis @JohnWLewis		@LouHayesJr Another excellent point, Lou. And many fields could learn a lot from other fields which are good at this. #innochat
12:58:01 16:58:01	John W Lewis @JohnWLewis		Thank you, innocats, for a cosy #innochat this week. Suggestions for topics are welcome. And we have some news of forthcoming chats soon.
12:58:07 16:58:07	Andrea Villeneuve @DreaVilleneuve		@Carol_Stephen Right?! There's a whole other conversation around the communication of risk #innochat
12:58:33 16:58:33	Lou Hayes, Jr. @LouHayesJr		@JohnWLewis Absolutely. That's why I sit in on these chats that are for those WAY OUTSIDE my arena. ;) #innochat

12:58:51 16:58:51	John W Lewis @JohnWLewis		@DreaVilleneuve @Carol_Stephen Yup, and a much of the most effective communication takes place during training. #innochat
12:59:06 16:59:06	Carol Stephen @Carol_Stephen		@JohnWLewis Thank you for another thought-provoking #innochat today!
12:59:32 16:59:32	Andrea Villeneuve @DreaVilleneuve		@Carol_Stephen @JohnWLewis Like the paper that lists the side effects in your prescription packet? #longonpossiblerisks #innochat
13:00:33 17:00:33	John W Lewis @JohnWLewis		@DreaVilleneuve @Carol_Stephen Yes, or printing it so small that it cannot be read or is assumed to be irrelevant! #innochat
13:00:50 17:00:50	Carol Stephen @Carol_Stephen		@DreaVilleneuve Oh, right! Nobody reads those side effects! Well, maybe the pharmacists do. @JohnWLewis #innochat
13:01:32 17:01:32	Simply Create @_simplycreate_		@JohnWLewis From the outset! It's not easy but dont fear them, don't be scared to fail, embrace learnings. Then the... https://t.co/iXbsROokAf
13:01:58 17:01:58	John W Lewis @JohnWLewis		@Carol_Stephen @DreaVilleneuve At risk of libelling them (!!) ... doctors are becoming less diligent at reading about side-effects! #innochat
13:04:59 17:04:59	John W Lewis @JohnWLewis		Thank you again, #innochat, and bye for now. There will be a transcript soon.
13:09:53 17:09:53	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Thanks for hosting John! Always fun to chat. #innochat