

CONCURRENT SESSION 1 – DECISION SUPPORT

Questions and Answers

- **Anonymous:** Question for Ehsan: Has the model been published? If not, can it be shared?
 - **Ehsan Roshani, National Research Council of Canada:** The AI engine that is created here has been designed and trained for a specific network. The AI architecture was optimized solving the pattern recognition issue, but the weight of that AI was optimized for a specific order distribution. As you know with the terms of security issues with this type of data, unfortunately we cannot publish the model itself. We have permission from the funding agency to share. We could explore potential collaborations. If anyone is interested, please contact me.
- **Anonymous:** Question for Ehsan: Can the AI also recognize and help with response to an overdose outbreak *not* associated with the water system?
 - **Ehsan Roshani, National Research Council of Canada:** Without knowing the details of the problem, yes. AI could be used to flag calls to 911 call centers, hospitals, or poison control centers that are a result of overdosing issues. With any AI, quantity and quality of the data is important. In our case, we only use metadata for the calls, such as timestamp and geolocation. We do not examine the content of the calls. If someone has access to the content or classification of the calls and has access to historical records of the 911 call centers, there is a good chance we could train a reliable robust AI engine that could flag if we get several calls.
- **Anonymous:** Question for Emily: Can this tool be used to identify the most sensitive and impactful variables associated with sampling and decontamination? Do you plan on conducting any future work related to this?
 - **Emily Peraza, Battelle Memorial Institute:** We are in the middle of a sensitivity analysis, which is answering the question of which parameters have the largest impact. You can also use the tool to your advantage and change several of the parameters that are input into the model to identify which parameters are more important to your specific scenario. This is continuing work that is still being developed.
- **Anonymous:** Question for Emily: How large were the decontamination areas? Does decontamination result in hazardous waste? If so, did you consider costs to store, transport, and dispose of this waste?
 - **Emily Peraza, Battelle Memorial Institute:** The boat scenario was roughly 800 meters squared, and the underground transport restoration (UTR) scenario was roughly 2600 meters squared. These are fairly small scenarios compared to what can actually be run in the tool. We consider hazardous waste as a result of decontamination. A portion of the model is used to sample the waste to determine how hazardous the waste is. Currently, we only account for the cost of disposal. We would like to add more functionality to the waste sampling portion of the tool.
- **Anonymous:** Question for Emily: Do the steps in the model represent the details in the current plans by response organizations?
 - **Emily Peraza, Battelle Memorial Institute:** The steps in the model were based on the two case studies that I mentioned as well as other tools of decontamination that are already developed. We model efficacy to more of a granular level. Those steps are informed by real-world responses.
- **Anonymous:** Question for Matthew: ECHA shows us 37 rinses are ineffective against PFAS.

- **Matthew Magnuson, U.S. EPA:** I am not sure what the question is. I would be happy to talk about this after the meeting. My contact information is posted.

