

Threat Detection for Venue Protection

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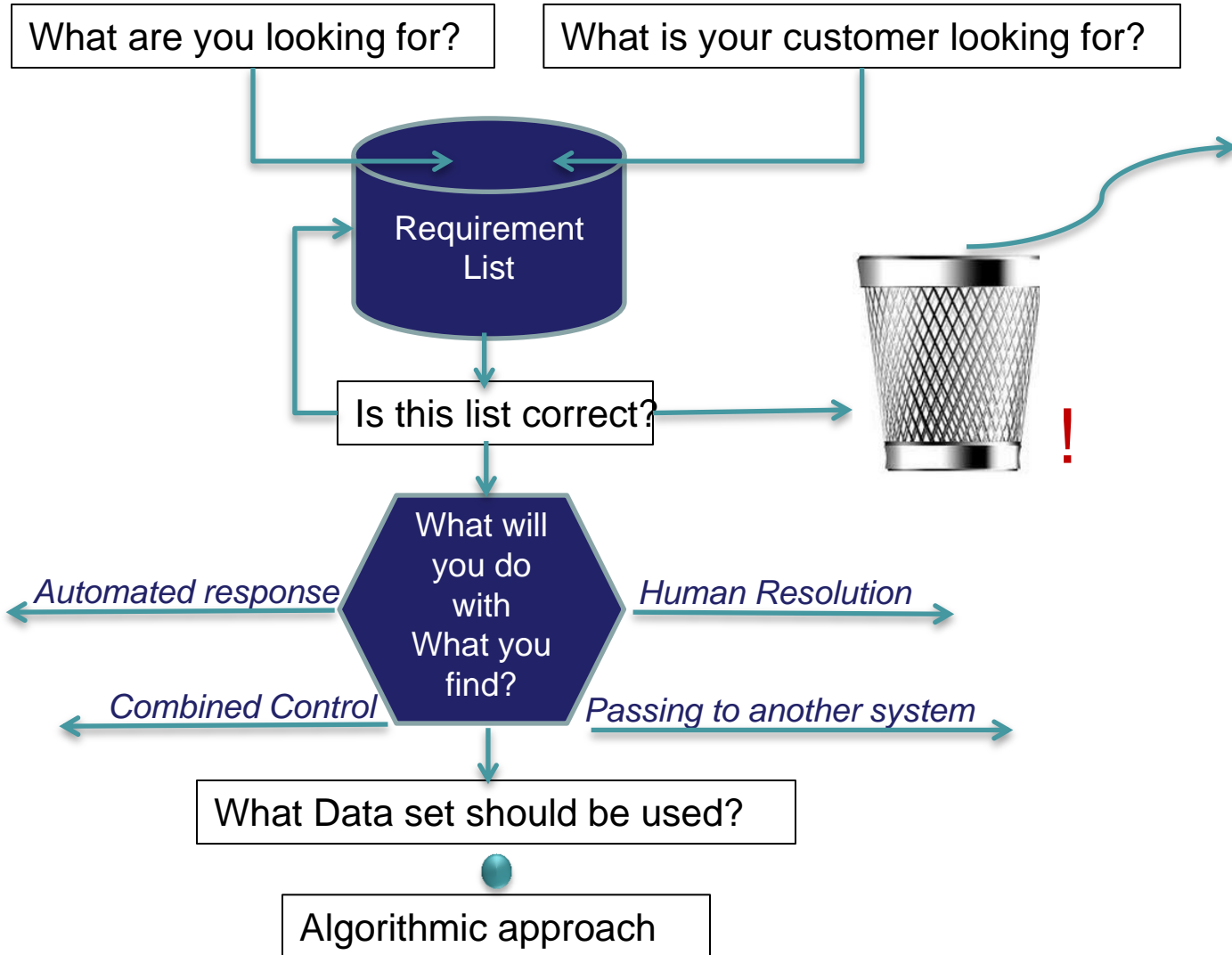
A Department of Homeland Security Center of Excellence



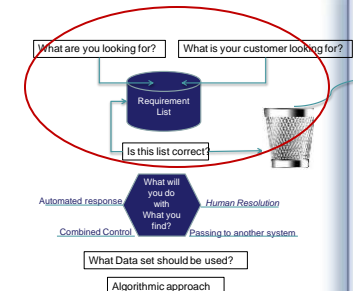
Automated Self Service Security Checkpoint Powered by QyFuse
An *Automated Fused Threat Detection Algorithm*



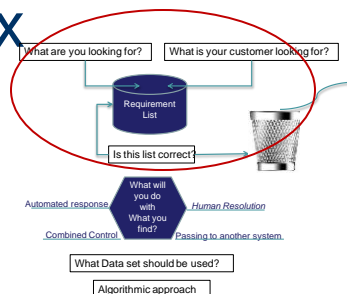
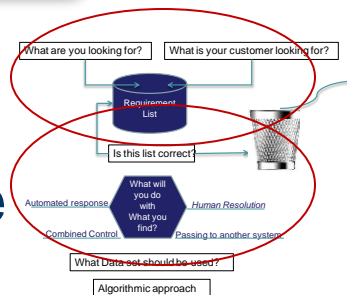
Second Slide #2: Conclusions



Venue market requirements



1. People flow
2. Guest experience
3. Privacy
4. Conops
5. Cost
6. Their threat matrix
7. False Alarm Rate
8. Detection Rate
9. Deterrence



1. High Pd%
2. Low FAR%
3. Throughput
4. Cost
5. Conops
6. Footprint

System and Algorithm are intertwined

Algorithms are dependant on what info they get, how, when & how good they get it

Just like the Central Nervous System depends on what it gets from peripheral nervous system.



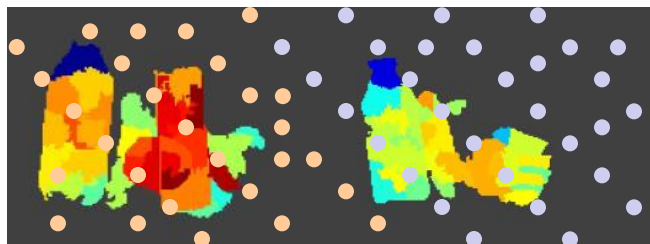
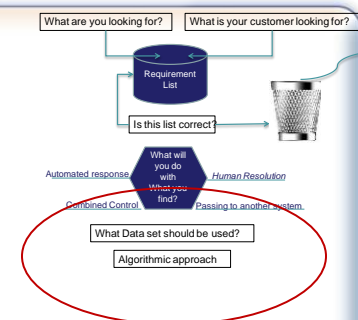
Ahm...Trivial?



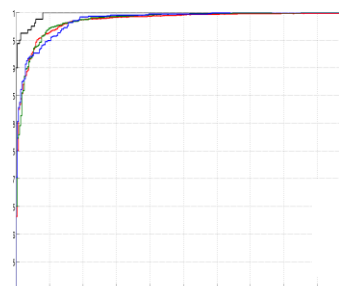
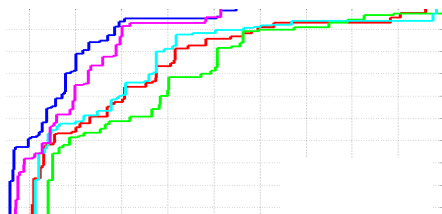
What central nervous system should you use?
To what dimension?
Can go beyond our grasp?

ATD (cousin of ATR)

Training sets : Qylur $\{X^* \text{ bags}(V_n, G_n); Y^* T_n(G_n, V_n, A_n, I_n)\}$
Venue $\{X(\text{attendance})\}$

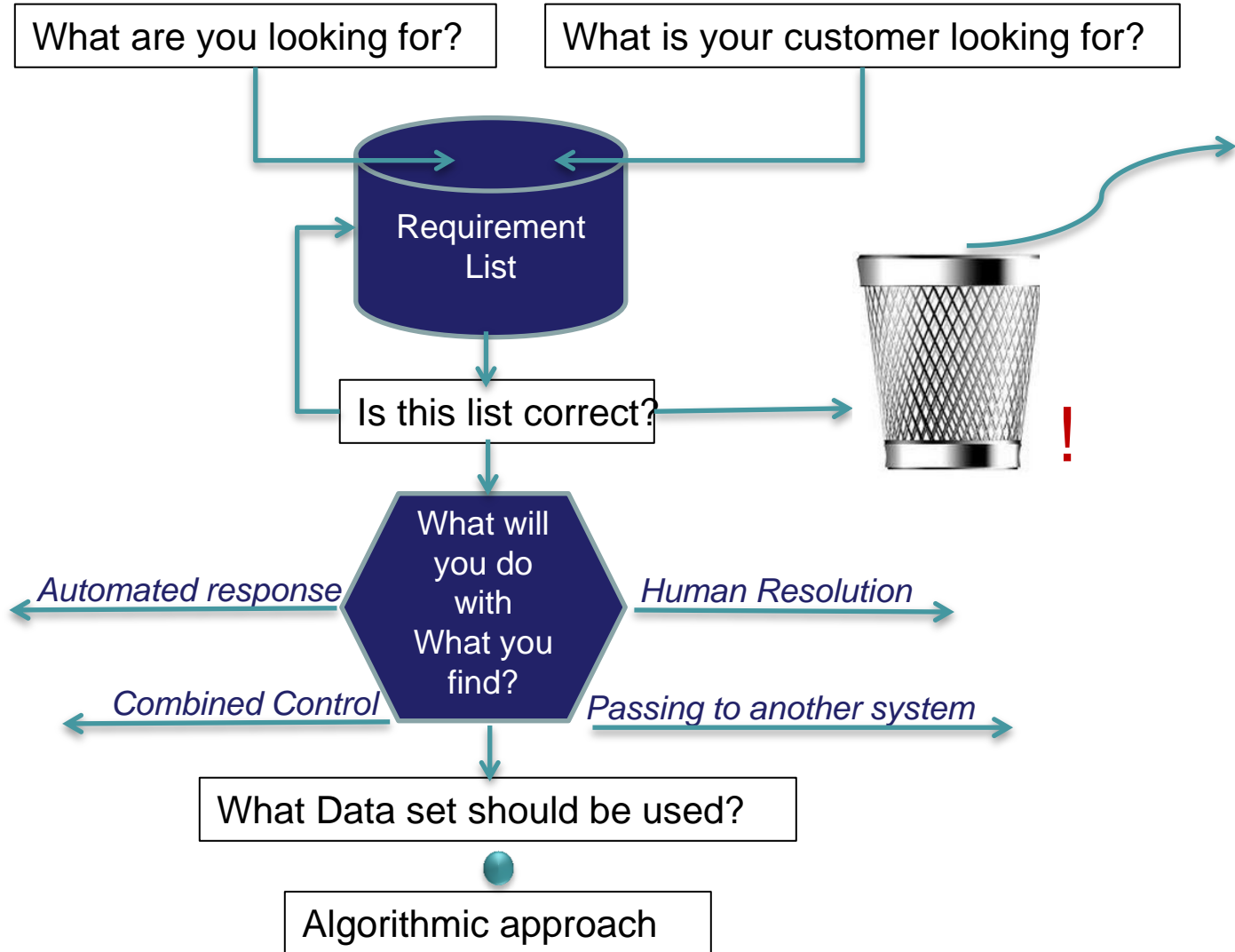


Where do we live in the ROC curve?



Conclusion

Algorithm for developing venue Automated Threat Detection Algorithm



Why the right ATR/ ATD makes all the difference in the world to a Venue??

