

Records (PMRs)

Research Questions

What are the relevant attributes to predict RQ1 support issue escalation?

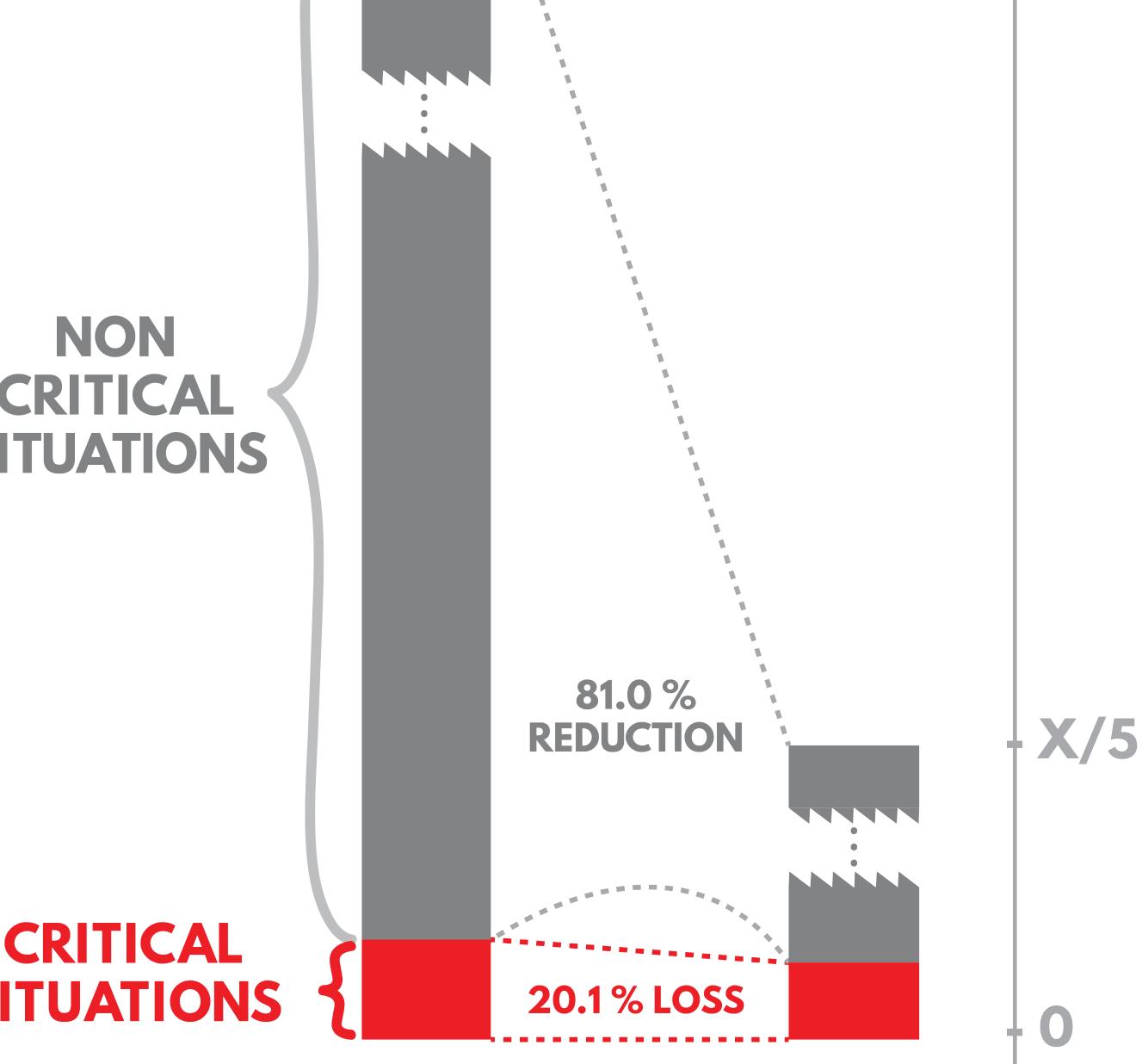
Can machine learning be used to recall the RQ2 majority of critical situations?

Methodology

Onsite field study to learn about IBM practice, workflow, and data stores.

Design and evaluate a machine learning model to harness information from previous PMRs





Design, implement, and validate a tool that supports identification of PMRs at high risk of escalation



Basic Metrics Number of entries Days open

Perception of Process

Number of support people Increases to severity count Decreases to severity count Increases to severity 1 count

Perception of Time

Time until first contact Average support response time Actual vs expected support response time Last customer contact

Customer Profiles

Number of PMRs Number of critical situations Critical situation/PMRs ratio Total average support response time



Results / Contributions

Relevant attributes and associated importance to model Machine learning model with 80% accuracy and 80% recall

Sort PMRs based on what's important to your team

Pertinent info allows for quick triage

Subscriptions for quick access to important PMRs

Overview

Subscribed

Doubletrax Teletri Group

X

Displaying model features gives insight into escalation risk

Custom inputs for dialogue not visible to customers

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	:

	/ C	BM Tool ×	
\rightarrow (localhost:8080/indepth/06562	2,589,548%20016-10-11

Search		12345,678,912 O16/00/00 Add PMR					
Escalation Risk -	Manual Risk —	Severity	PMR Info	Customer	Problem	Next Action	Subscrib
100	100	3	06562,589,548 O16/10/11 MILLS, LOIS	Doubletrax	Lorem ipsum dolor sit amet, consectetur adipiscing elit,,	Sed ullamcorper posuere congue. Vestibulum vel nisi rutrum.	×
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PMR Summarization and Tracking (Last Refreshed: Thu Oct 27 2016 18:02:05)

Basic Information	Unsubs
PMR ID: 06562,589,548 016/10/11	Severity: 3
Customer: Doubletrax	Risk of Escalation:
(ID: 5993542)	100%
IBM Owner: MILLS, LOIS	Opened: 2016-10-11 (10 days ago)

Problem Description

Problem: Lorem ipsum dolor sit amet, consec	tetur adipiscing elit,,	
Next Action: Sed ullamcorper posuere congue.	. Vestibulum vel nisi rutrum. (time)	
Next Action		Update
Predictive Model Features (Last Updated: Invalid Date - NaN	I:NaN)	
Perception of Process		
Involved Support: 4	Severity Increases: 0	
Severity 1 Increases: 0	Severity Decreases: 0	
Perception of Time		
First Contact Delay: 18	Avg Response Time: 92	
Last Customer Contact: 2016-03-29 11:15:09	Actual vs Expected Resp Time: -48	
	(less than expected)	

Customer Profile / History

Number of PMRs: 234	Crit Ratio: 2%
Number of CritSits: 7	Expected Resp Time: 140

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Comment...

History

Comment

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