

Using AI to test the effectiveness of Crisis Response options

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Our questions

1. Can AI be used to accurately identify a potential crisis?
2. Can AI be used to accurately identify the type of crisis?
3. Can AI be used to accurately identify crisis response types?
4. Can you use AI to determine the most effective response in a self-inflicted crisis?

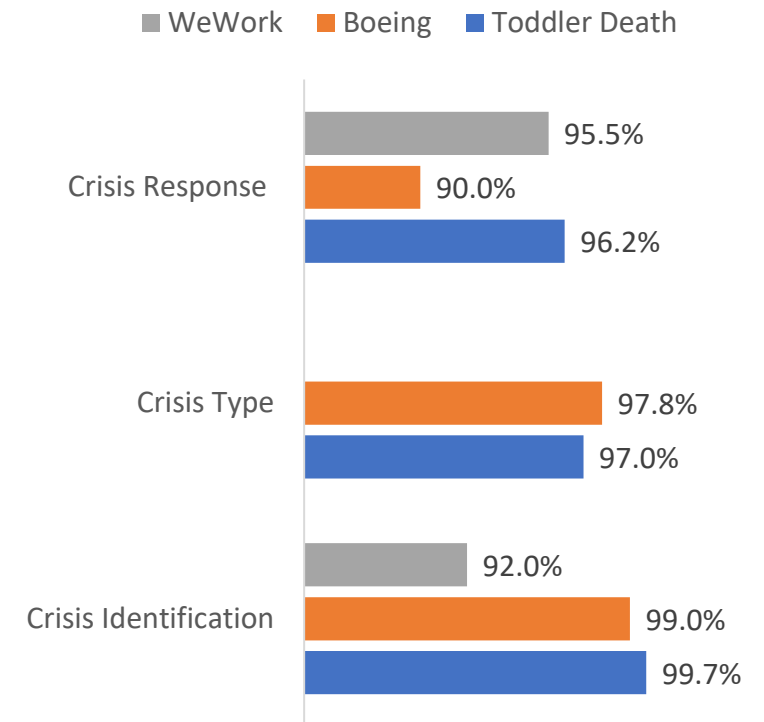
Methodology

- Collect a representative sample of media on three different human-error crises
 1. An accidental toddler death
 2. The Boeing 737-Max crisis
 3. The WeWork CEO crisis
- Run media data through FullIntel' s AI system, while also using human review to identify crises, crisis type and response.
- Compare results
- Compare “effectiveness” of response based on tonality and time to neutralize the crisis.

Results

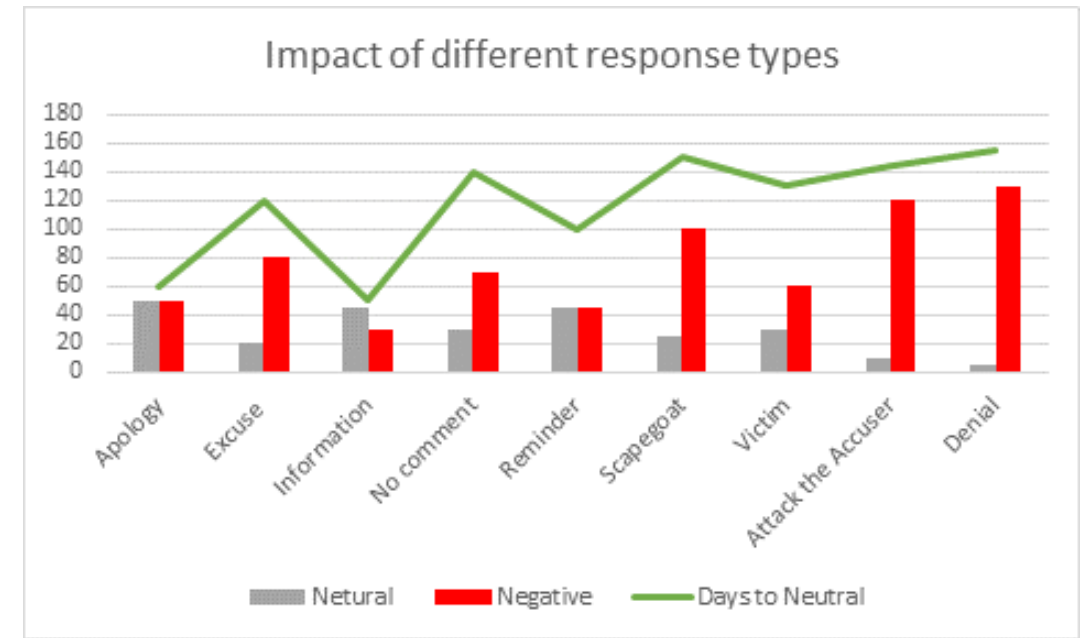
1. AI is effective in identifying a potential crisis - average 96.9% agreement
2. AI accurately identified the type of crisis, within a limited crisis set – average 97.4% agreement
3. AI can accurately identify crisis response types – 93.9% agreement

Percent Agreement between Humans & Machine



Results

- With sufficient data, and specific definitions of tonality, AI may be able to determine the most effective response in a self-inflicted crisis
- Denial and Attack the Accuser and Scapegoating result in the highest negatives and longest time to neutrality



Thank You

Boeing 737 MAX Groundings

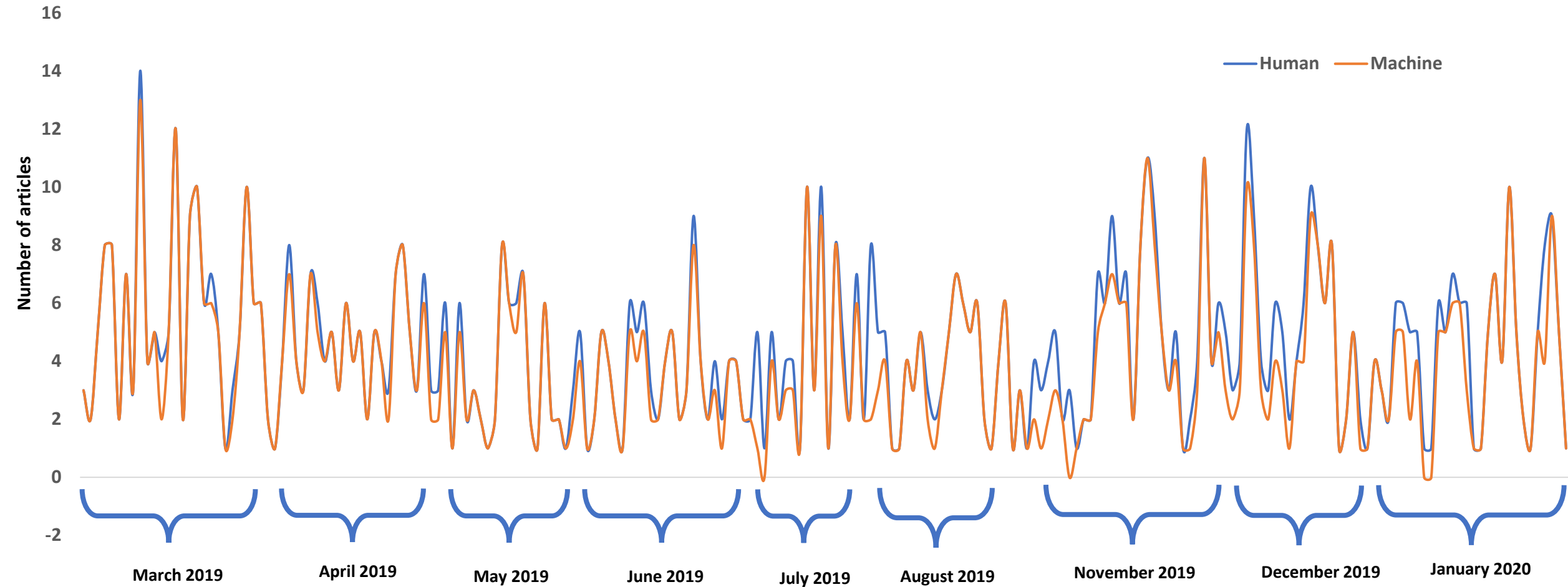
Human Vs. Machine

Decision Making – Not Crisis

Human Vs. Machine

Boeing 737 MAX groundings

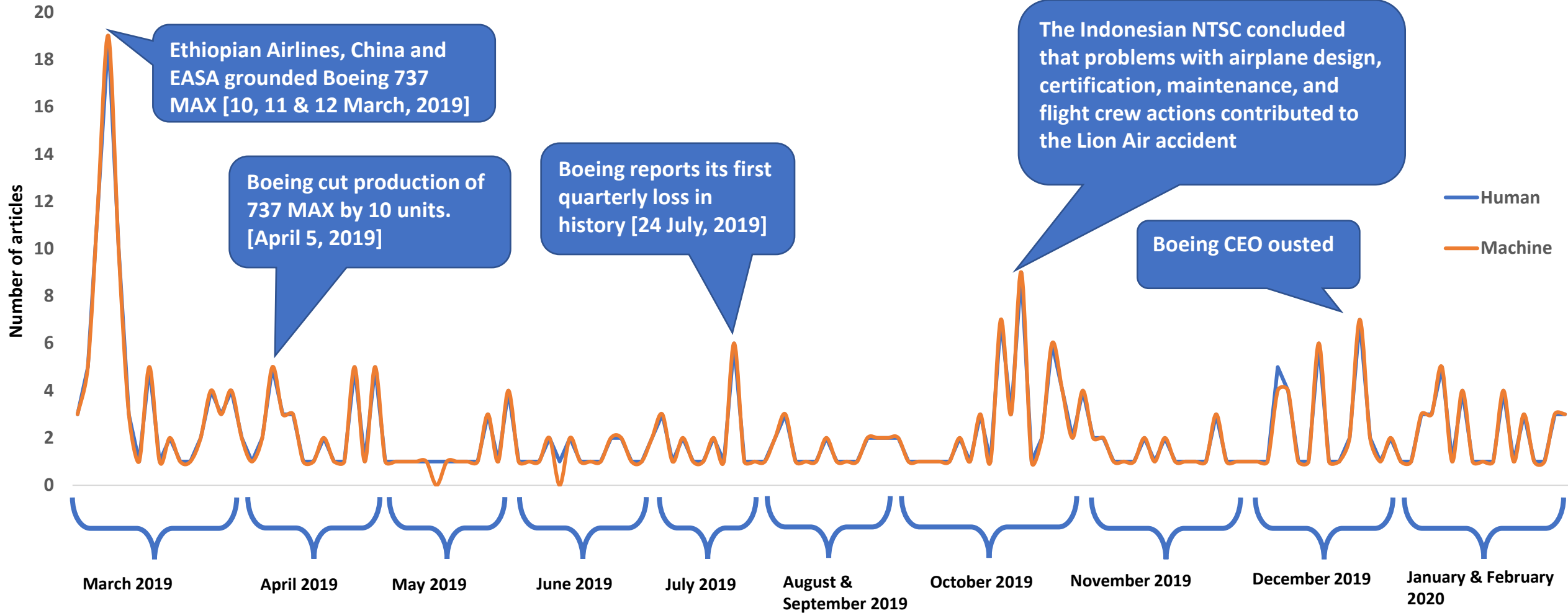
Machine and Humans Agree 89.2%



Decision Making – Crisis Human Vs. Machine

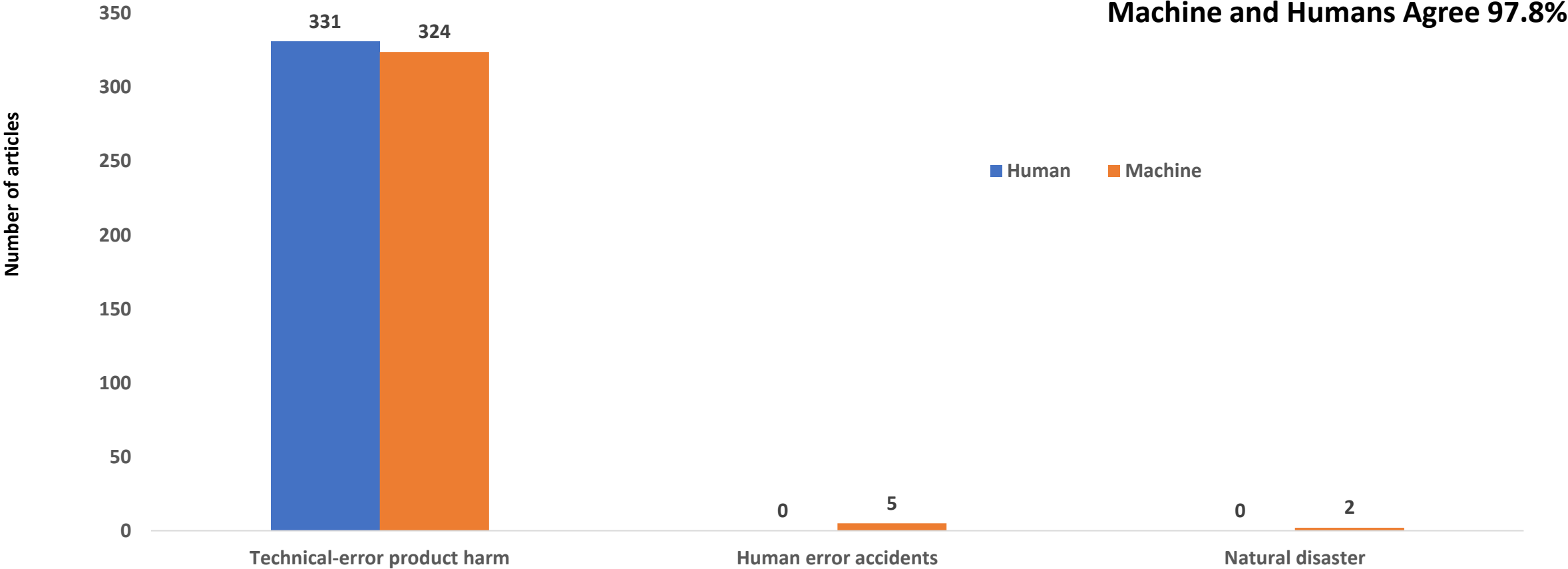
Boeing 737 MAX groundings

Machine and Humans Agree 99%

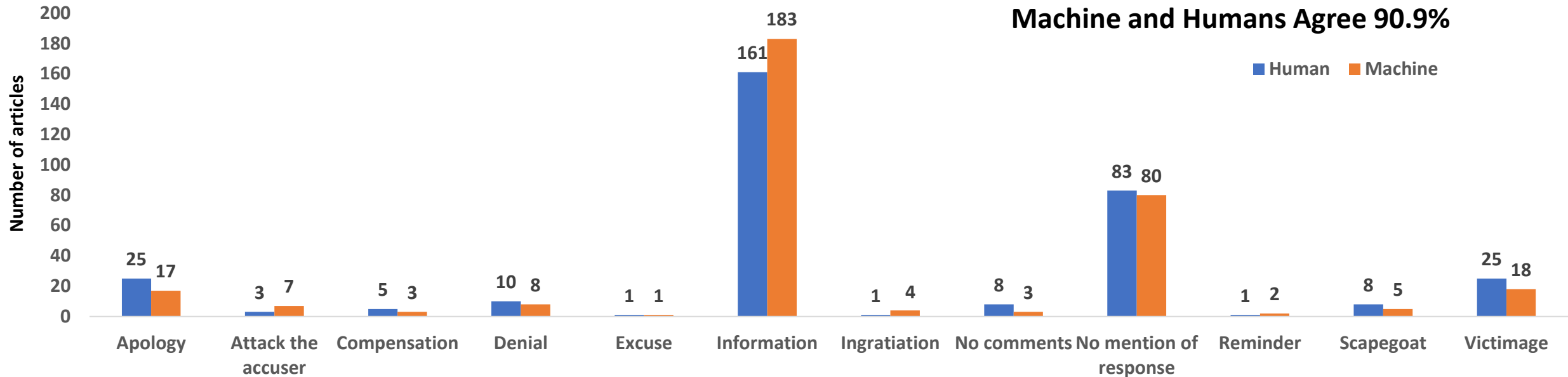


Crisis clock starts

Human Vs. Machine – Crisis Type Classification

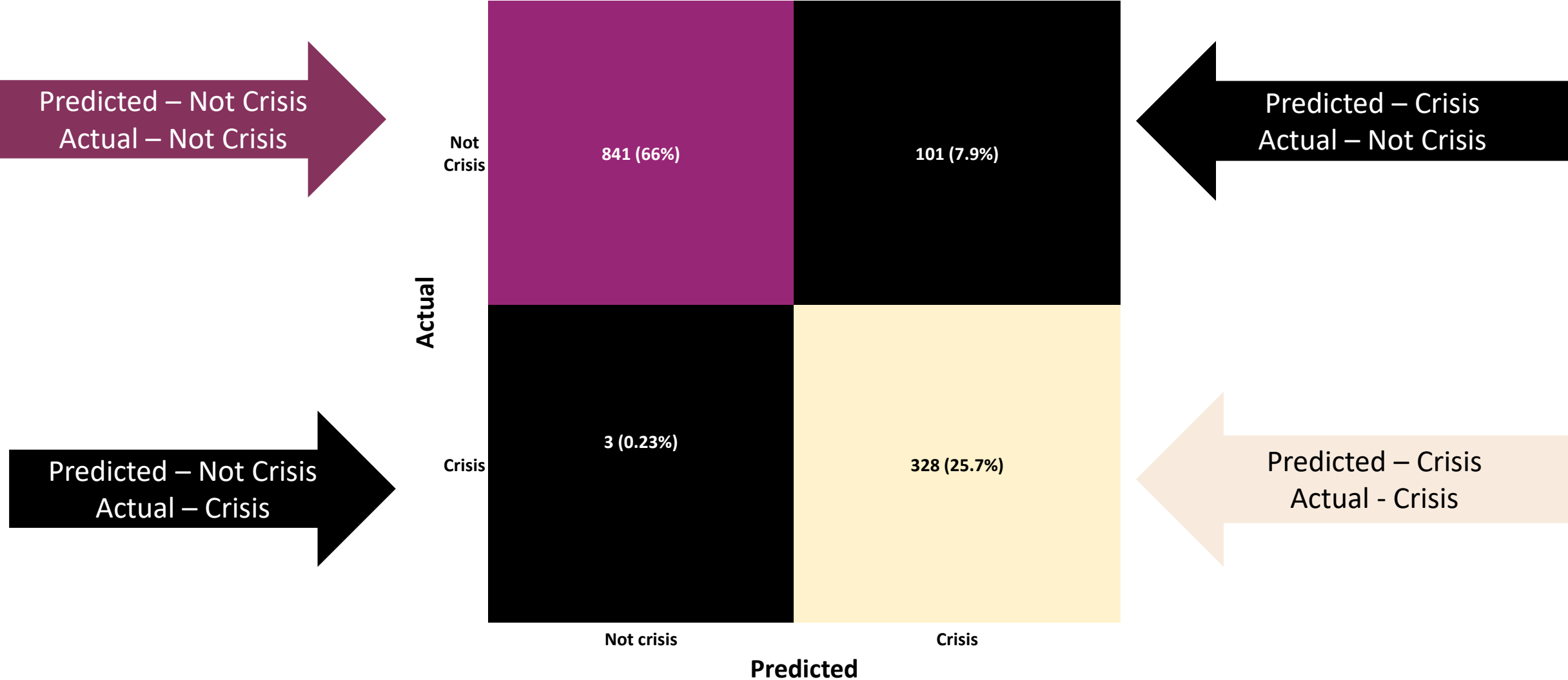


Human Vs. Machine – Response Type Classification



Response Type	Definition
Apology	Crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness.
Attack the accuser	Crisis manager confronts the person or group claiming something is wrong with the organization.
Compensation	Crisis manager offers money or other gifts to victims.
Denial	Crisis manager asserts that there is no crisis.
Excuse	Crisis manager minimizes organizational responsibility by denying intent to do harm and/or claiming inability to control the events that triggered the crisis.
Information	Crisis manager provides more information about the crisis.
Ingratiation	Crisis manager praises stakeholders and/or reminds them of past good works by the organization.
No comments	Crisis manager refuses to comment on the crisis.
No mention of response	When an article doesn't mention any response from the crisis manager.
Reminder	Tell stakeholders about the past good works of the organization.
Scapegoat	Crisis manager blames some person or group outside of the organization for the crisis.
Victimage	Crisis managers remind stakeholders that the organization is a victim of the crisis too.

Confusion matrix Crisis or Not?

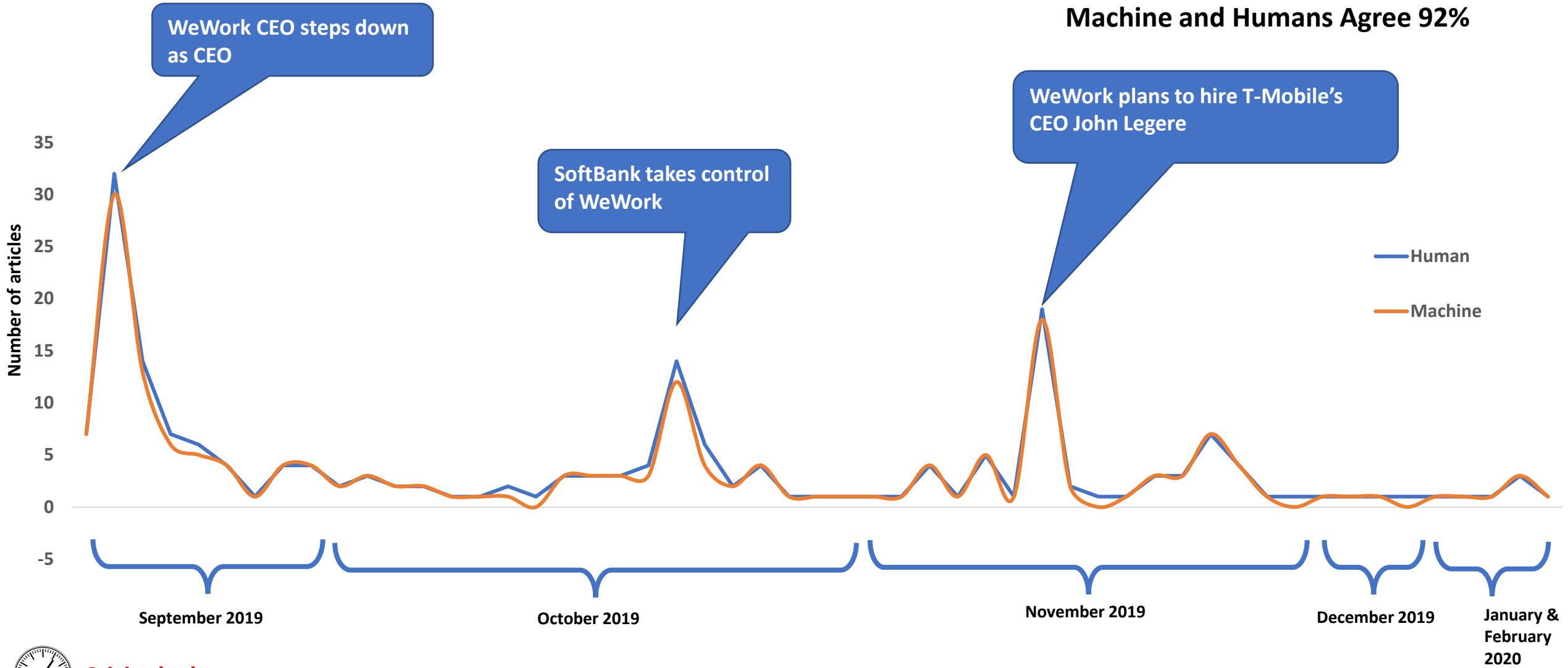


WeWork CEO Forced to Resign

Human Vs. Machine

Decision Making – Crisis Human Vs. Machine

WeWork CEO forced to resign

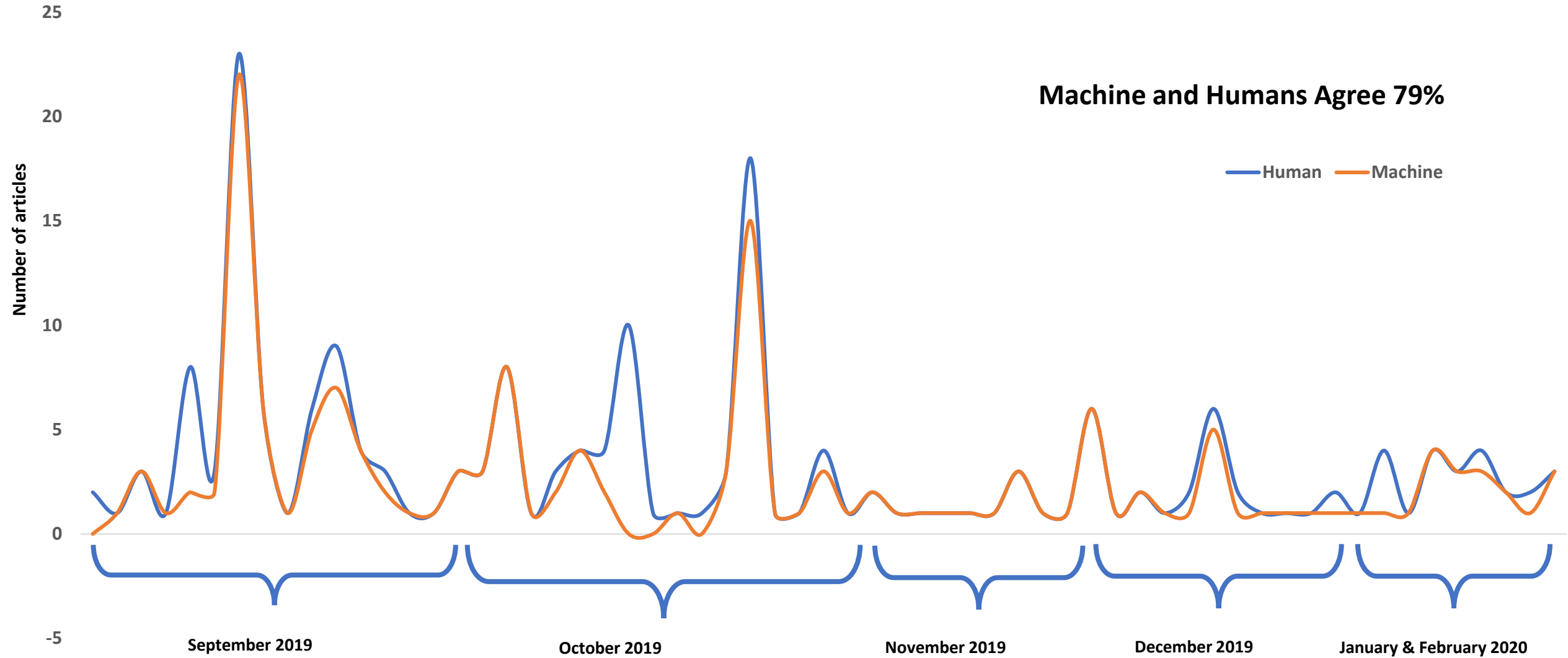


Crisis clock starts

Decision Making – Not Crisis

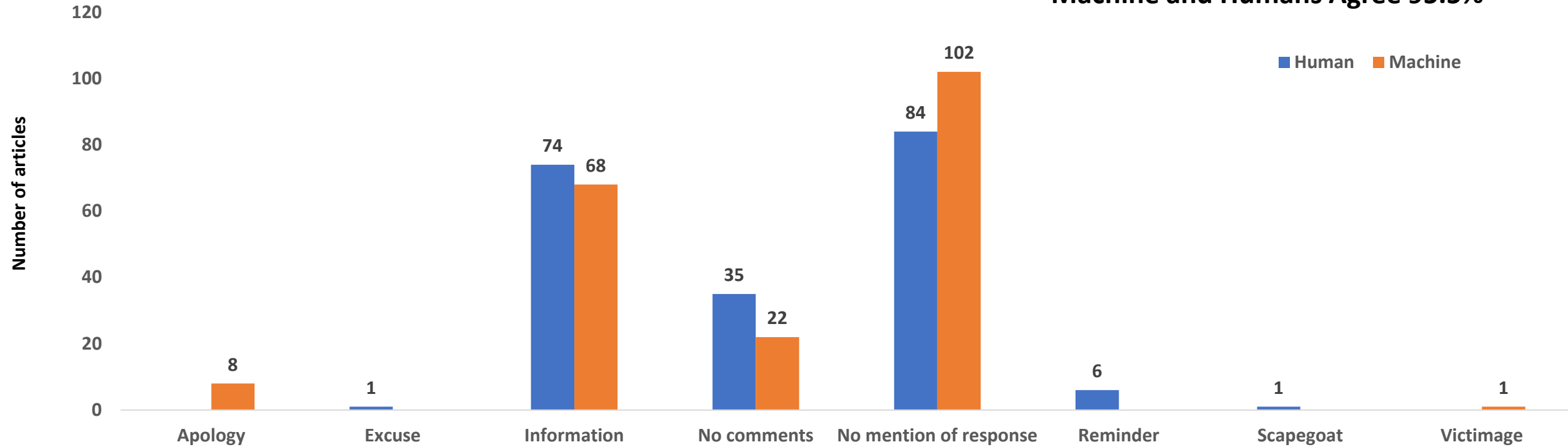
Human Vs. Machine

WeWork CEO forced to resign



Human Vs. Machine – Response Type Classification

Machine and Humans Agree 95.5%



Response Type	Definition
Apology	Crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness.
Excuse	Crisis manager minimizes organizational responsibility by denying intent to do harm and/or claiming inability to control the events that triggered the crisis.
Information	Crisis manager provides more information about the crisis.
No comments	Crisis manager refuses to comment on the crisis.
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Reminder	Tell stakeholders about the past good works of the organization.
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Confusion matrix

Crisis or Not?

WeWork CEO forced to resign

Predicted – Not Crisis
Actual – Not Crisis

Actual	Not Crisis	158 (40%)	42 (10%)
	Crisis	16 (4%)	185 (46%)
		Not crisis	Crisis

Predicted – Crisis
Actual – Not Crisis

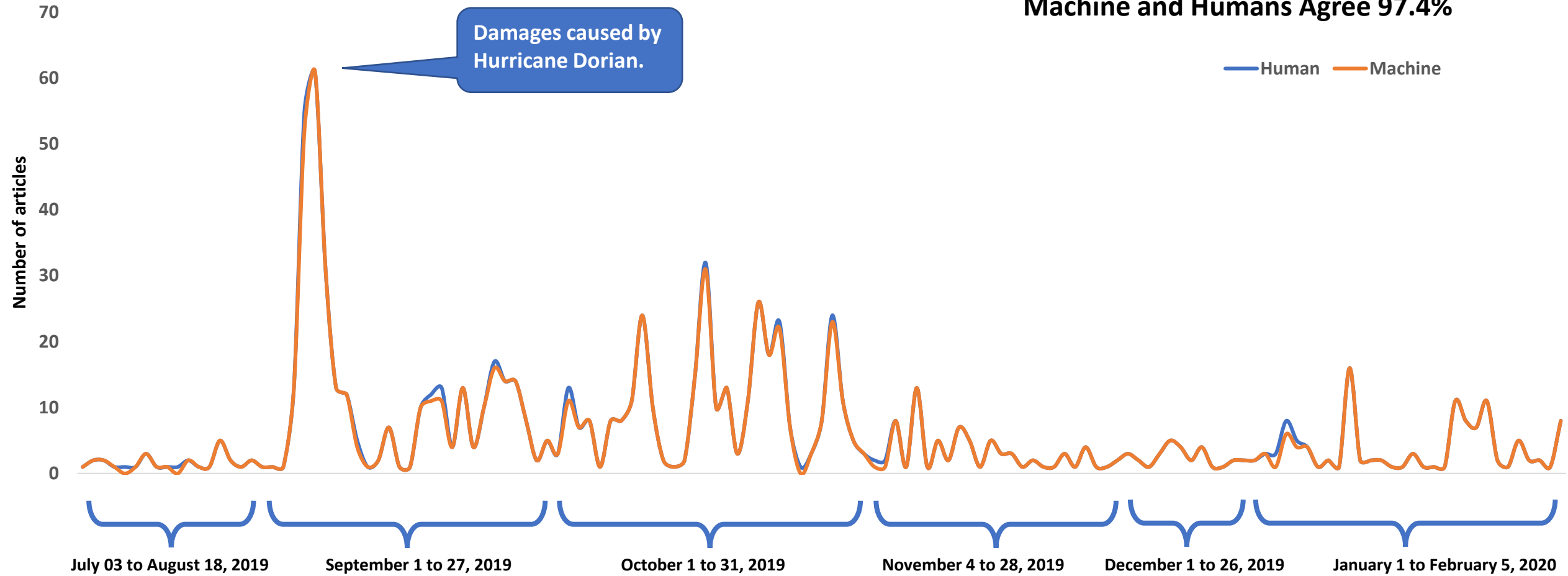
Predicted – Not Crisis
Actual – Crisis

Predicted – Crisis
Actual - Crisis

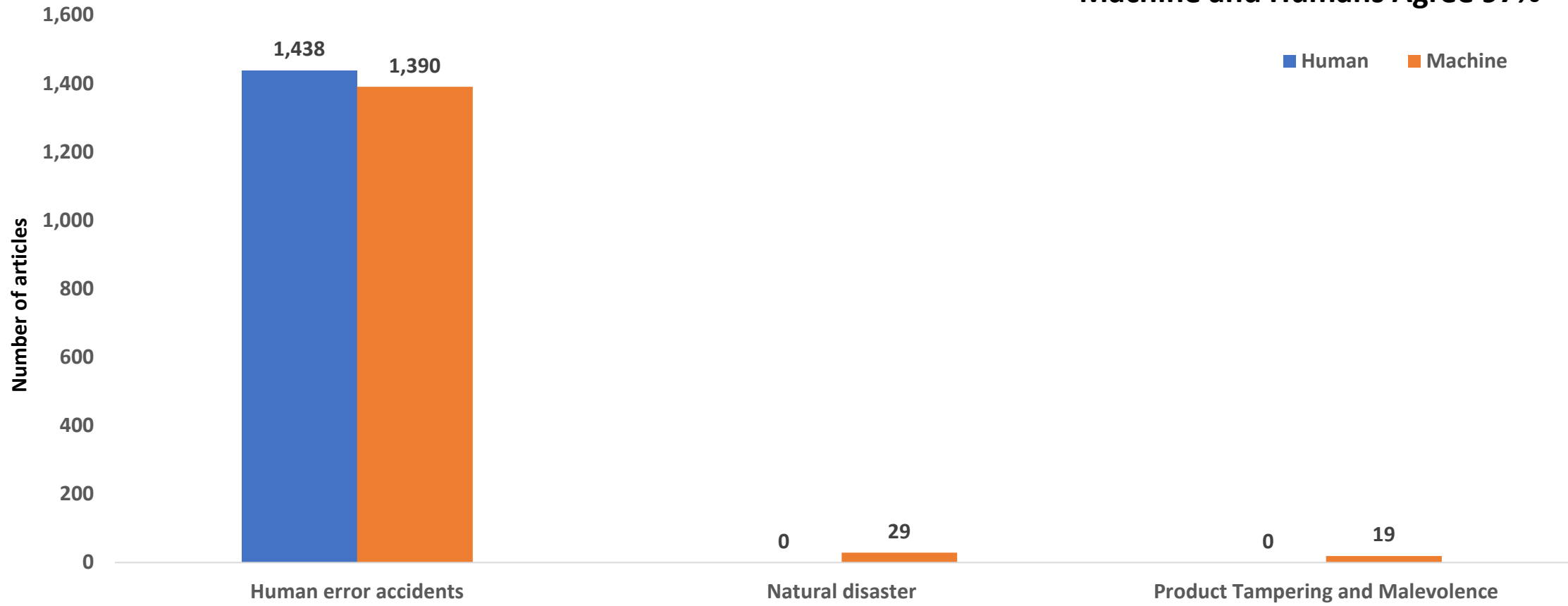
Predicted

Decision Making – Not Crisis Human Vs. Machine

Machine and Humans Agree 97.4%



Human Vs. Machine – Crisis Type Classification

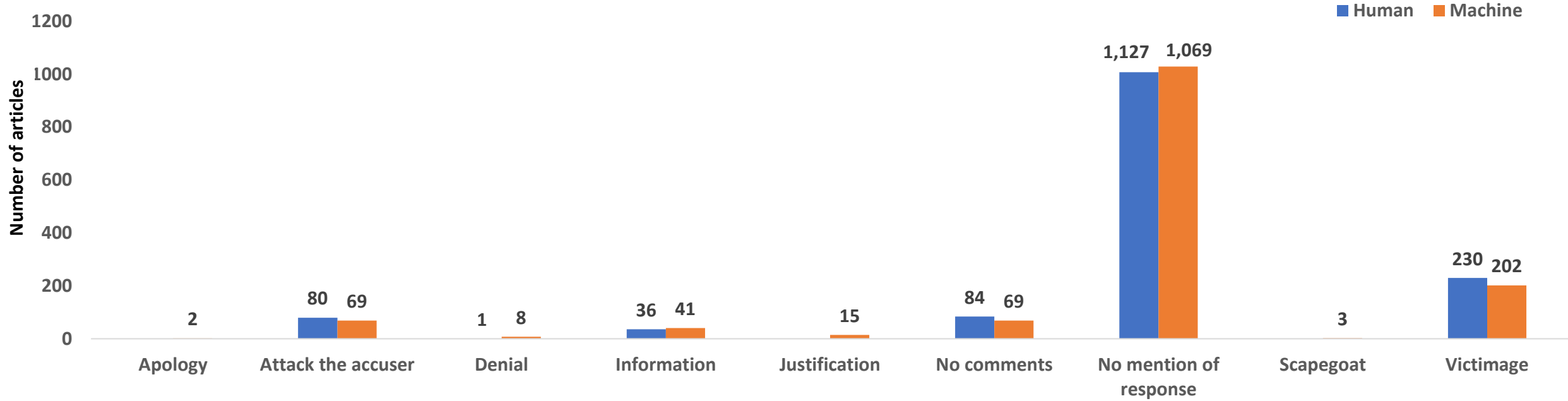


Machine and Humans Agree 97%

Human Machine

Human Vs. Machine – Response Type Classification

Machine and Humans Agree 96.2%



Response Type	Definition
Apology	Crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness.
Attack the accuser	Crisis manager confronts the person or group claiming something is wrong with the organization.
Denial	Crisis manager asserts that there is no crisis.
Information	Crisis manager provides more information about the crisis.
Justification	Crisis manager minimizes the perceived damage caused by the crisis.
No comments	Crisis manager refuses to comment on the crisis.
No mention of response	When an article doesn't mention any response from the crisis manager.
Scapegoat	Crisis manager blames some person or group outside of the organization for the crisis.
Victimage	Crisis managers remind stakeholders that the organization is a victim of the crisis too.

Confusion matrix Crisis or Not?

