

General

ID ¹				
Use case name	Behavioural and sentiment analytics			
Context	Security			
Application domain	On-premise systems			
Status	PoC			
Contributor	Name	Affiliation	Contact	
Scope ²	Derive emotional state and goal of person from their gestures, face, actions			
Objective(s)	Determine if the movements, actions and general behaviour of a person is sign of malevolent intentions. Detect stealing of objects and other criminal behaviours. Prevent undesired behaviour (suicide), adapt narrative to state of person, provide dynamic content according to emotional responses.			
Narrative	Short description (not more than 150 words)			
	Complete description			
Key performance indicators (KPIs)	ID	Name	Description	Reference to mentioned use case objectives
	1			
	2			
AI features	Task(s)	Recognition		
	Method(s) ³	Decision trees, deep learning		
	Hardware ⁴	Video camera, microphone, network, cpu, gpu		
	Terms and concepts used ⁵	Behavioural analytics, action, visual cues, sentiment, emotion, goal, social media, security, surveillance		
Challenges and issues	Challenges: Surveillance cameras often have low resolution, can be in poorly lit environment with bad top-down view angle. A lot of suspicious behaviour can be hidden by passer-by or large crowds. Issues: Unwanted behaviours is MUCH LESS frequent than normal behaviour and can take on various forms			
Societal concerns	Right to privacy			

Data (optional)

Data characteristics	
Description	
Source ⁶	
Type ⁷	
Volume (size)	
Velocity (e.g. real time) ⁸	
Variety (multiple datasets) ⁹	
Variability (rate of change) ¹⁰	
Quality ¹¹	

Process scenario (optional)

Scenario conditions					
No.	Scenario name	Scenario description	Triggering event	Pre-condition ¹²	Post-condition ¹³

Training (optional)

Scenario name	Training				
Step No.	Event ¹⁴	Name of process/Activity ¹⁵	Primary actor	Description of process/activity	Requirement

Specification of training data ¹⁶	
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Evaluation (optional)

Scenario name	Evaluation				
Step No.	Event ¹⁷	Name of process/Activity ¹⁸	Primary actor	Description of process/activity	Requirement

Input of evaluation ¹⁹	
Output of evaluation ²⁰	

Execution (optional)

Scenario name	Execution				
Step No.	Event ²¹	Name of process/Activity ²²	Primary actor	Description of process/activity	Requirement

Input of Execution ²³	
Output of Execution ²⁴	

Retraining (optional)

Scenario name		Retraining			
Step No.	Event ²⁵	Name of process/Activity ²⁶	Primary actor	Description of process/activity	Requirement

Specification of retraining data ²⁷	
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References

References						
No.	Type	Reference	Status	Impact on use case	Originator/organization	Link

Footnote

¹ Leave this cell blank.

² The scope defines the limits of the use case.

³ AI method(s)/framework(s) used.

⁴ Hardware system used.

⁵ Terms and concepts listed here can be used to extend the work of WG 1 (AWI 22989 and AWI 23053) as necessary.

⁶ Origin of data, which could be from instruments, IoT, web, surveys, commercial activity, or from simulations.

⁷ Structured/unstructured Images, voices, text, gene sequences, and numerical. Composite: time-series, graph-structured

⁸ The rate of flow at which the data is created, stored, analysed, or visualized.

⁹ Data from a number of domains and a number of data types. The wider range of data formats, logical models, timescales, and semantics complicates the integration of the variety of data.

¹⁰ Changes in data rate, format/structure, semantics, and/or quality.

¹¹ Completeness and accuracy of the data with respect to semantic content as well as syntactical of the data (such as presence of missing fields or incorrect values)

¹² Describe which condition(s) should have been met before this scenario happens.

¹³ Describe which condition(s) should prevail after this scenario happens. The post-condition may also define "success" or "failure" conditions.

¹⁴ The event that triggers the step. This might be completion of the previous event.

¹⁵ Action verbs should be used when naming activity.

¹⁶ Training data can be further specified.

¹⁷ The event that triggers the step. This might be completion of the previous event.

¹⁸ Action verbs should be used when naming activity.

¹⁹ Specify input of evaluation.

²⁰ Specify output of evaluation.

²¹ The event that triggers the step. This might be completion of the previous event.

²² Action verbs should be used when naming activity.

²³ Specify input of evaluation.

²⁴ Specify output of evaluation.

²⁵ The event that triggers the step. This might be completion of the previous event.

²⁶ Action verbs should be used when naming activity.

²⁷ Retraining data can be further specified.