Teo 2: emotional Teo
Advanced User Interfaces project

Advanced User Interface tutoring discussion #2

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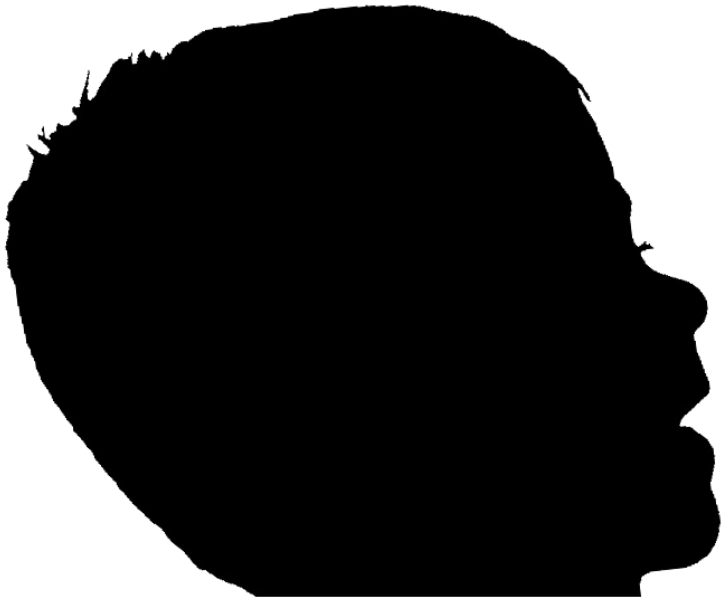
Scenarios

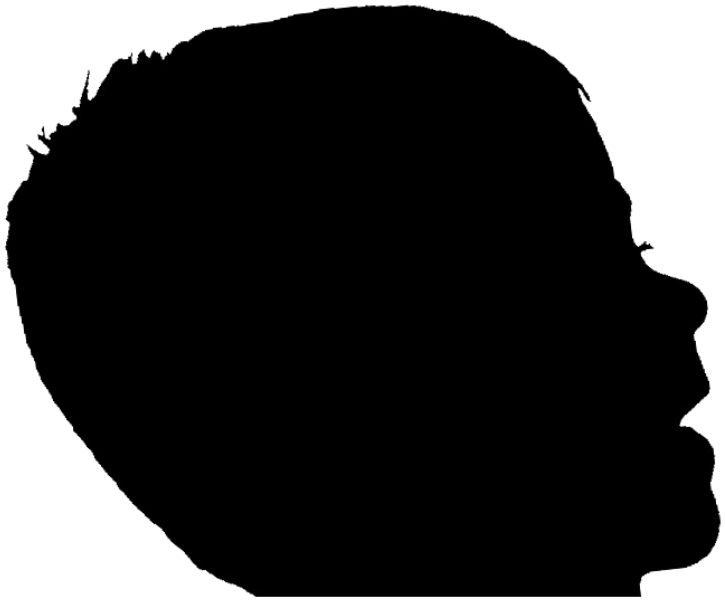
Scenario 1: Marco-Polo game (1/3)

Where are you, Rafael?



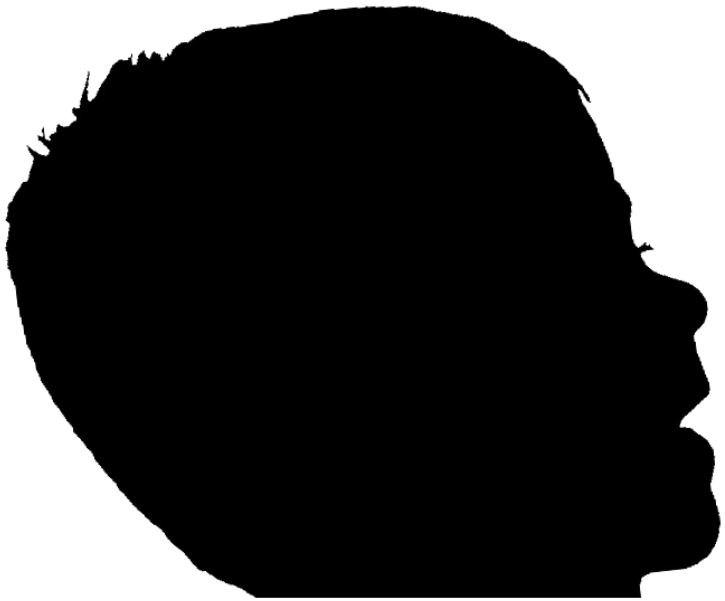
Scenario 1: Marco-Polo game (1/3)

Where are you, Rafael?



Teo, here!

Scenario 1: Marco-Polo game (1/3)



Scenario 1: Marco-Polo game (2/3)

Setting

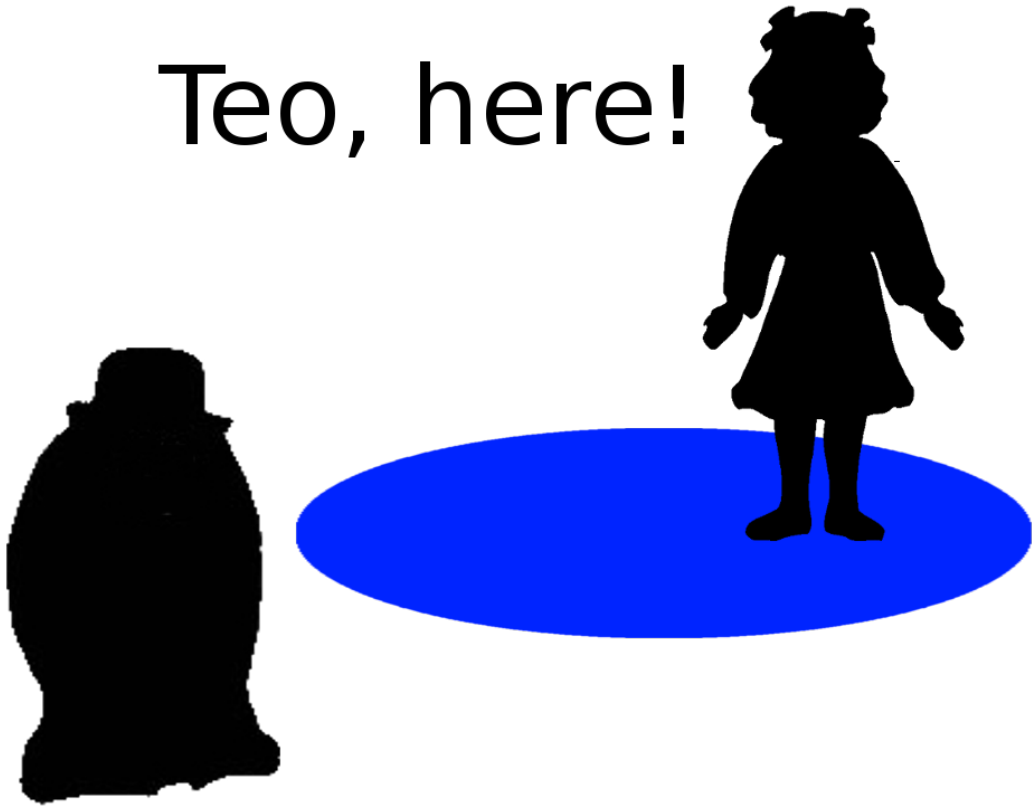
- The child and Teo share sufficiently large space to move around
- The game starts with Teo 'blindfolded' and explain the child the dynamic
- Teo prompts the kid to move away from him
- Anytime Teo needs help would ask 'Where are you, (name of the child)?' and the child must answer back 'Teo, here!'
- Teo will, then try to move towards the kid.
- If Teo is able to reach to the 'intimate region' with the kid for a moment, Teo wins and shows happiness congratulating th kid for helping him.
- Else, Teo keeps asking the kid for help and continues looking.

Scenario 1: Marco-Polo game (3/3)

Hardware and Software requirements

Use:	Hardware:	Software:
Determine spatial orientation based upon the child's call	Microphones	Sound Localization
Verbal communication for the facilitator and rewarding roles	Speakers	Voice Synthesizer
Emotional rewarding	LED Matrix and strips	Emotional face generation
Measure the region of interaction between Teo and the child's	Distance/Motion sensors	Child's proximity and presence
To detect whether the child touch Teo to indicate he found him	Pressure sensors	Touch detection
Teo movement	Motors	Control

Scenario 2: Guide Blind-Teo game (1/3)



Scenario 2: Guide Blind-Teo game (1/3)

Scenario 2: Guide Blind-Teo game (2/3)

Setting

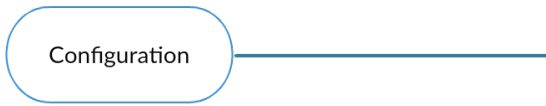
- The child and Teo share sufficiently large space to move around.
- There are checkpoints around the room identified with colors/figures.
- In the display it is shown to the kid a sequence of checkpoints that he has to help Teo to arrive while Teo's blindfolded.
- The child must move to the check point and call 'Teo, here!' so Teo could start moving in his direction.
- Whenever Teo arrives to a correct checkpoint congratulates the kid happily and prompts him to keep doing a great job
- The game ends when Teo reaches the final checkpoint.
- The goal of the game is to help the kid associate the sequence presented to a spatial relation with the physical checkpoints.

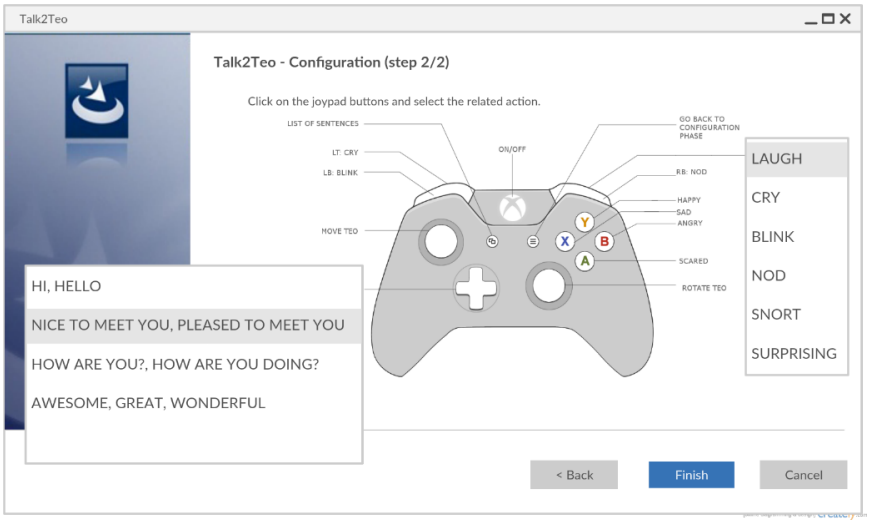
Scenario 2: Guide Blind-Teo game (3/3)

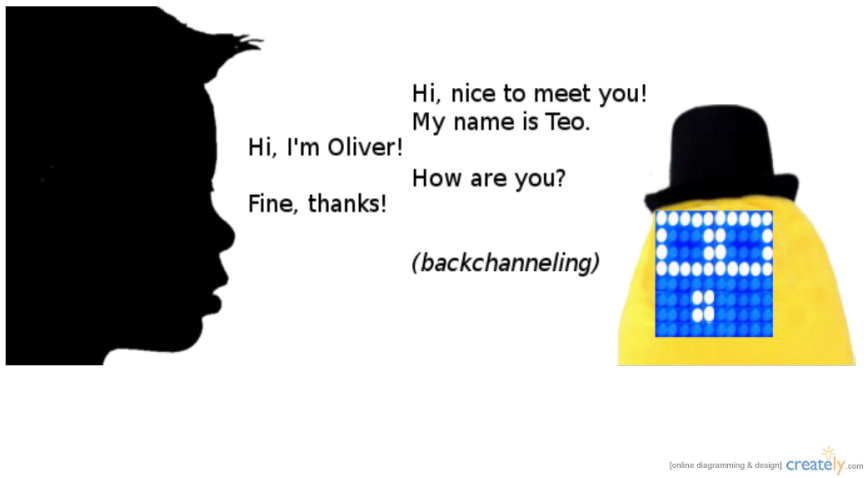
Hardware and Software requirements

Use:	Hardware:	Software:
Determine spatial orientation based upon the child's call	Microphones	Sound Localization
Determine if Teo arrives to the right checkpoint	Kinect/RFID tags	Spatial Localization/Checkpoint ID
Display the sequence of checkpoints for the child to follow	Display	User interface to display information
Verbal communication for the facilitator and rewarding roles	Speakers	Voice Synthesizer
Emotional rewarding	LED Matrix and strips	Emotional face generation
Measure the region of interaction between Teo and the child's	Distance/Motion sensors	Child's proximity and presence
Teo movement	Motors	Control

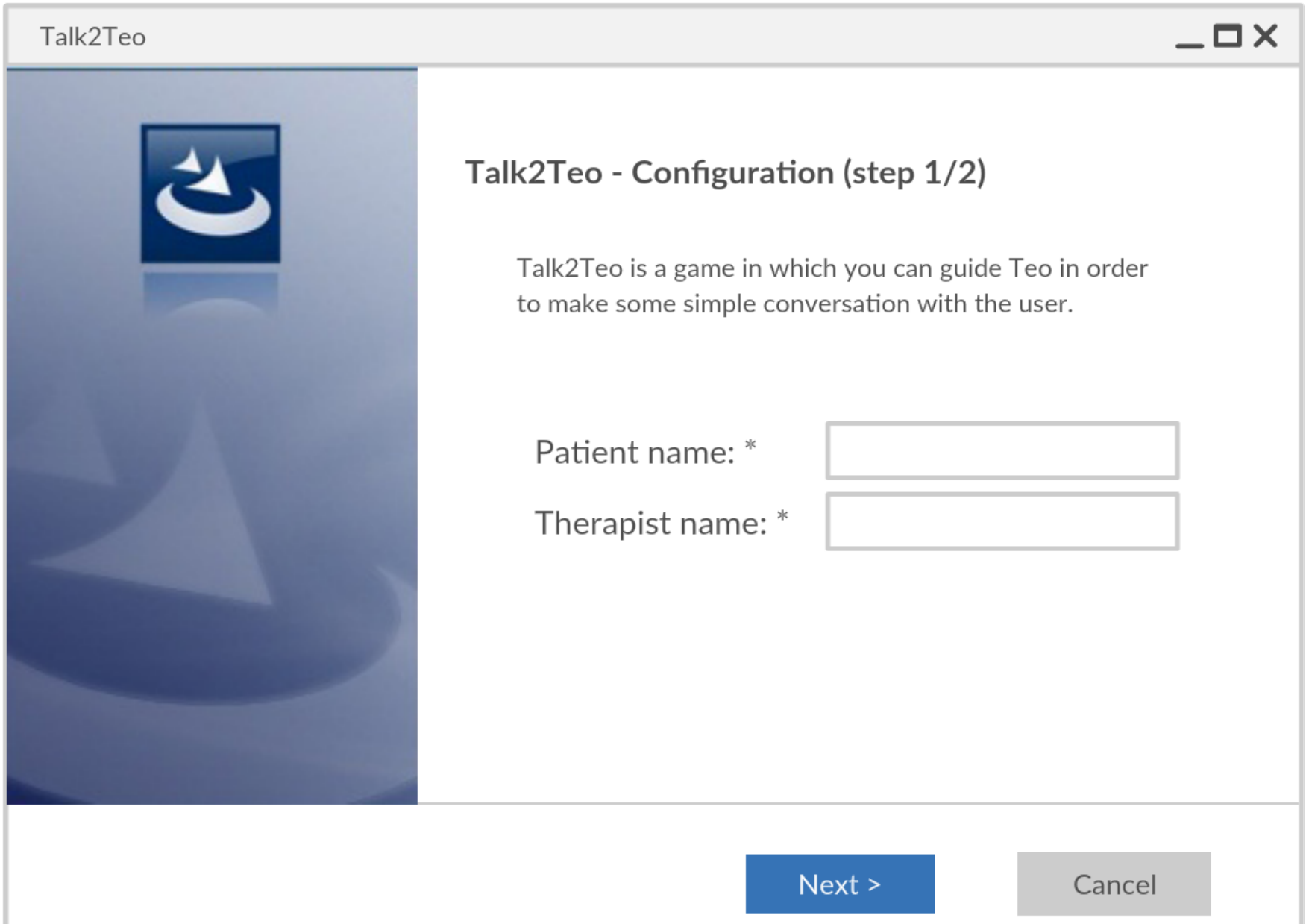
Scenario 3: Talk2Teo (1/3)







Scenario 3: Talk2Teo (2/3)



Scenario 3: Talk2Teo (2/3)

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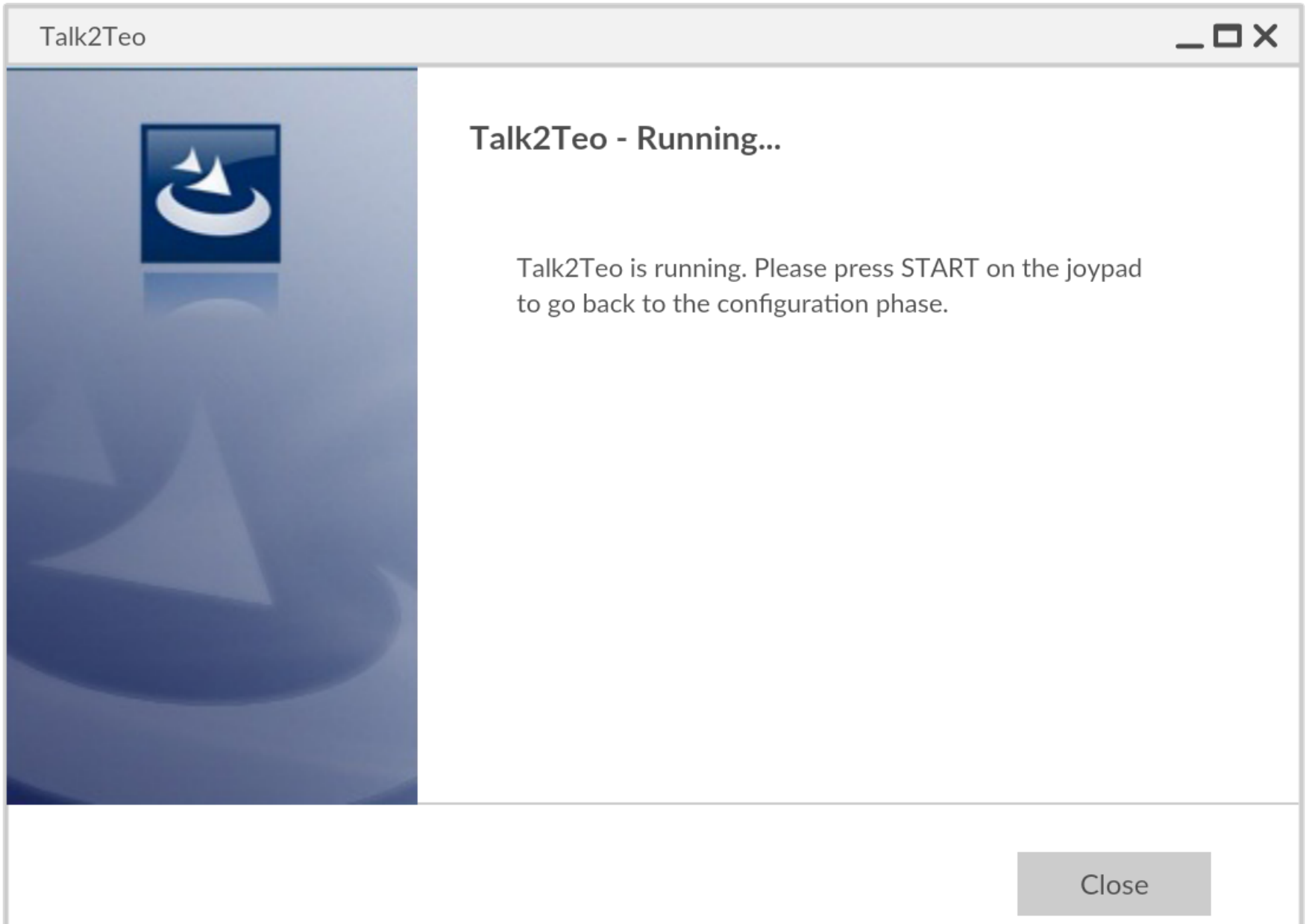


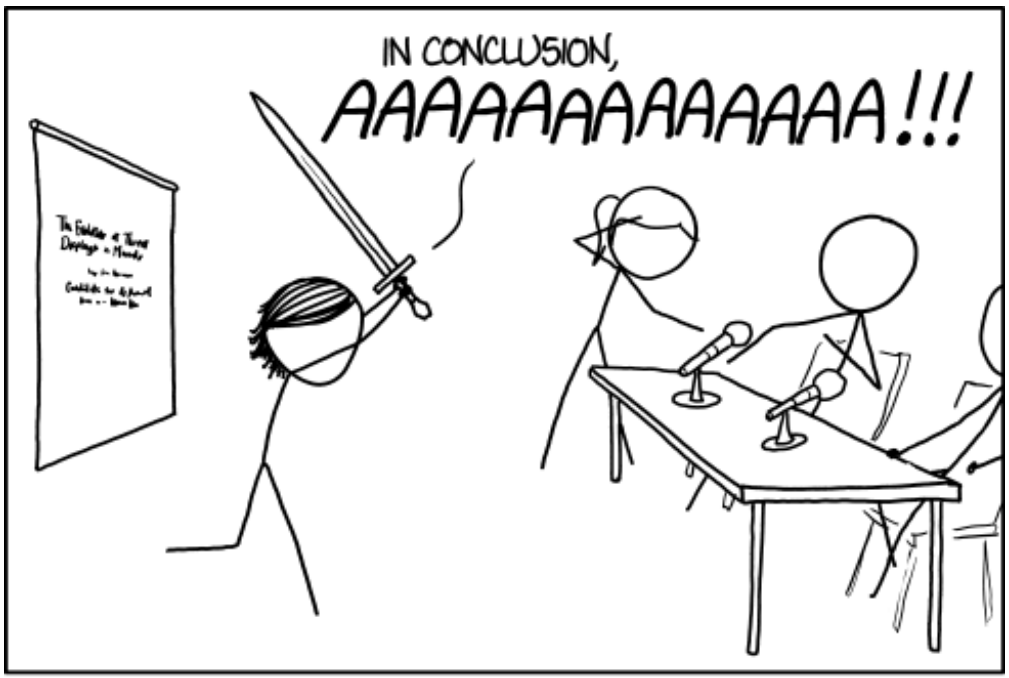
Scenario 3: Talk2Teo (3/3)

Hardware and Software requirements

Manual:	Automatic:	Command:	Hardware:	Software:
x	x	Move/Rotate	Motors	Control
x		Speak	Speakers	Voice Synthesizer
x		Select mood (happy, sad, angry, scared)	LED Matrix and strips	Emotional face generation
x	x	Facial expressions (laugh, cry, ...)	LED Matrix and strips, speakers	Emotional face generation, voice synthesizer
	x	Non-linguistic utterances (yeah, ok, uh huh, mhmm)	LED Matrix and strips, speakers	Emotional face generation, voice synthesizer
	x	Follow (keep eye contact)	Distance/Motion sensors, RFID tags, motors	Control

The end

Thanks!



http://www.xkcd.com/1403