

Towards a communication system for people with athetoid cerebral palsy

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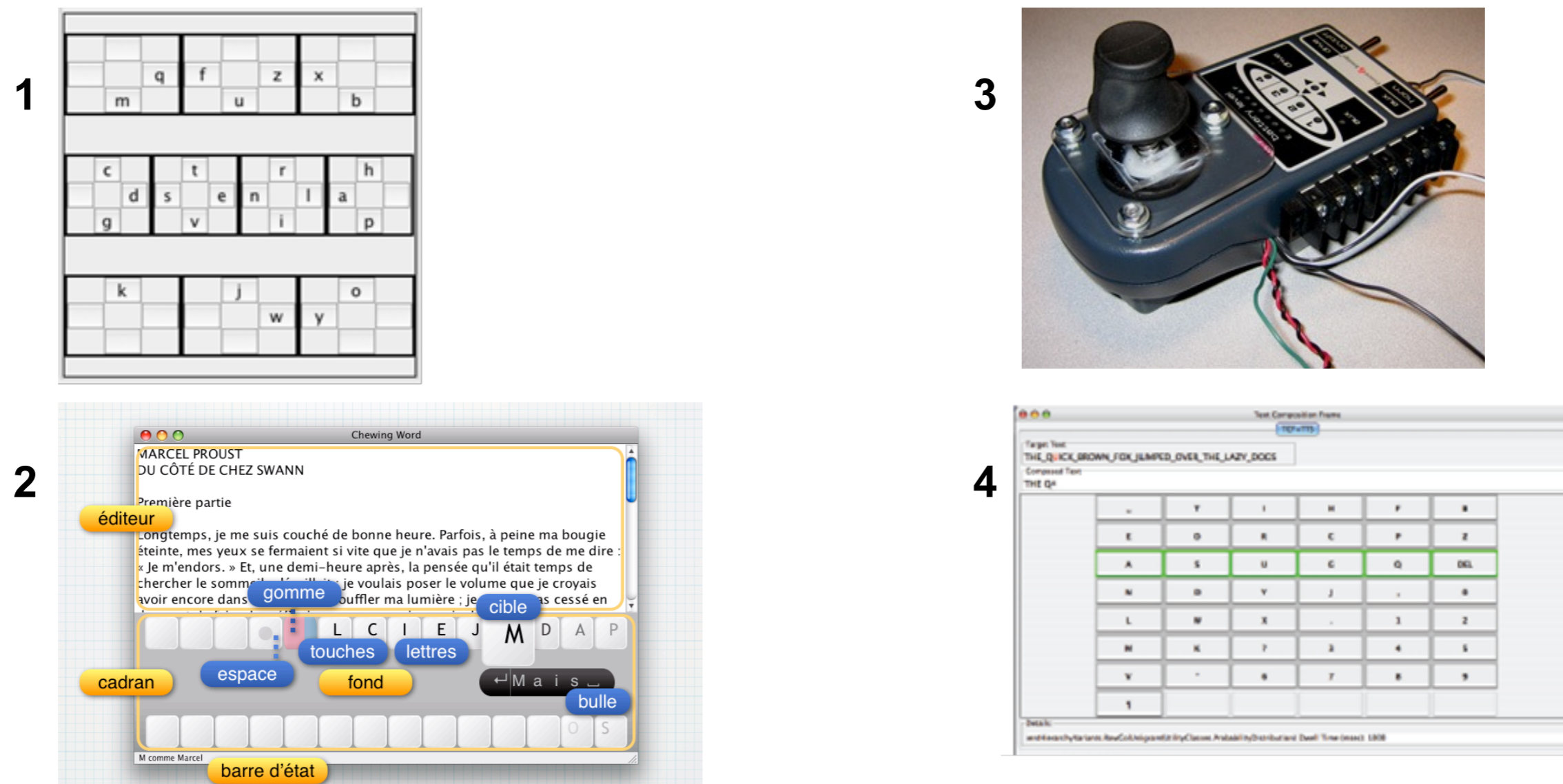
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Objectives

- Create a new system of communication for people with cerebral palsy (CP) with athetoid problems (*gestural and speech difficulties*)
- Mixed entry method: predictive virtual keyboard + pictograms (to speed up the input)
- Context sensitive support system (location awareness, semantic awareness)

Related works: examples of communication aids



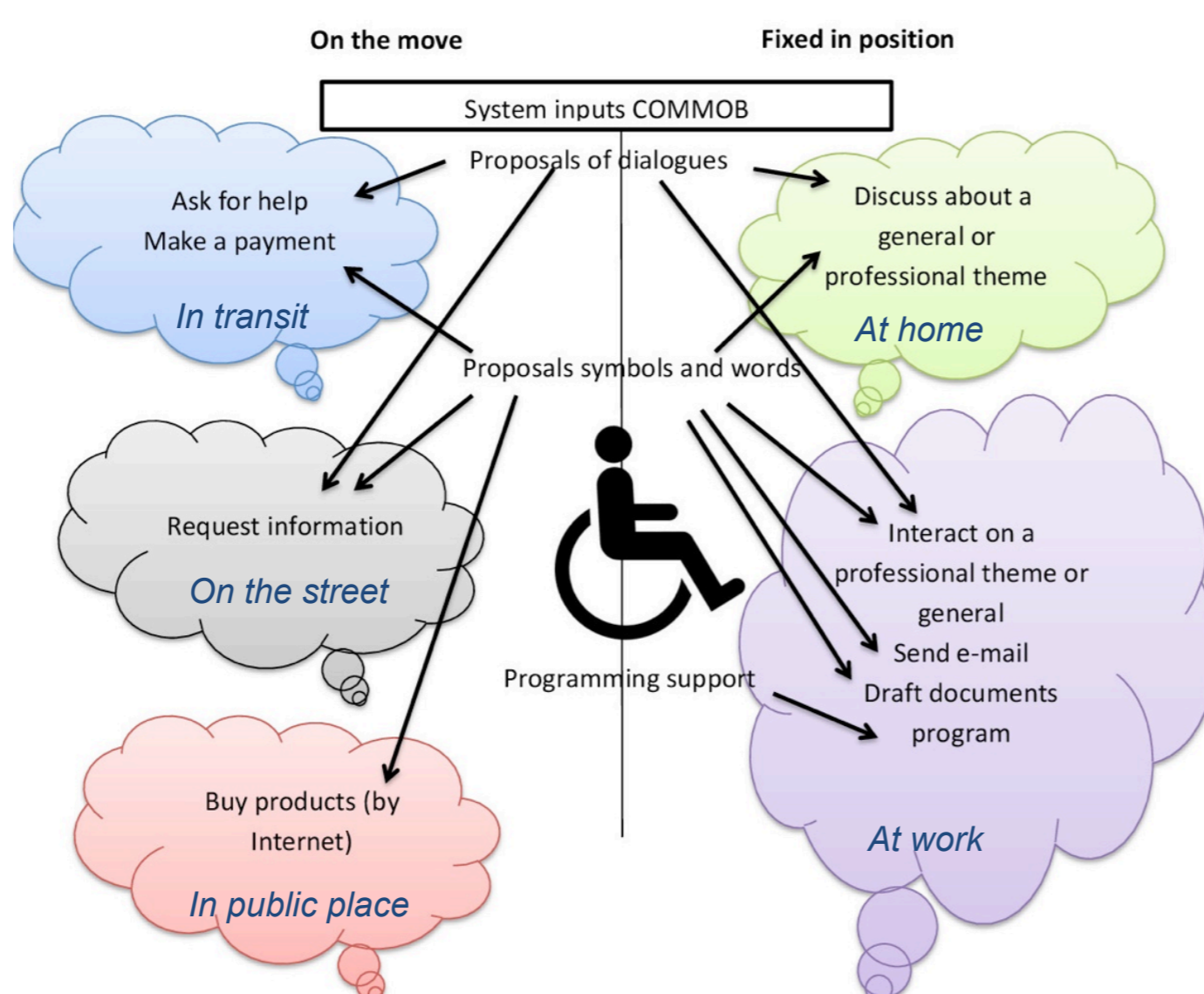
1: K-Thot optimized virtual keyboard (Baas et al.)
 2: Chewing Word virtual keyboard (Grange)
 3: EdgeWrite Joystick (Wobbrock & Myers)
 4: Row-column scanning with two buttons (Baljko & Tam)

Too limited according with the real needs of the people concerned

Partners



Needs analysis



COMMOB (COMMunication in MOBility) system specification

- Used at home, at work and on the move
- Installed on wheelchair (joystick + tablet)
- Mixed entry: pictograms + virtual keyboard
- Context-sensitive:
 - location awareness + semantic awareness
- Predefined sentences & dialogs

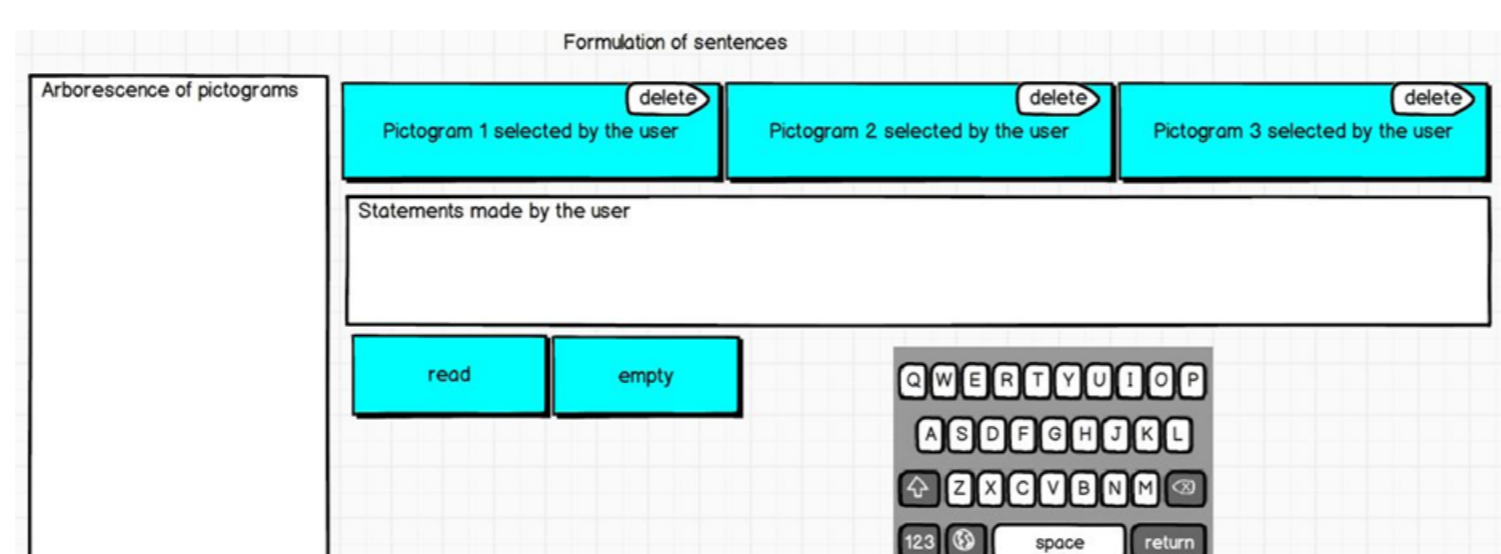
Work in progress

- Prototyping on Windows HP tablet 8.9"
- Evaluation in different situations including mobility contexts

Embedded COMMOB system, used in different situations



COMMOB interfaces



Mixed entry: pictograms + virtual keyboard



I go to the airport to go to the conference

The user fills the dotted lines with words which may be proposed by the virtual keyboard



Predefined dialog