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Strategies for engaging with users

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Novilunio.net

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Master Degree in Assistive Technology (60 cfu)

Vicenza, Padua and Venice.



Brain Injury Association

No-profit organization serving acquired brain injured individuals and their families



Easy Coop – www.cooperativaeasy.it

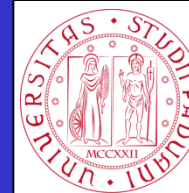
Acquired brain injury Work and Social Rehabilitation Institute



Protocolli LifeTech 1.0

Teoria e pratica dell'ausilio informatico

Paolo Lamon, Cristian Leorin



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What next...

Novilunio is a no profit organization and a community of professionals that operates in the medical, technological, educational and assistive fields.

Its members work in the 'aid assistive technology' and promote a specific line of thought and design procedure in the field of computer aids.

Novilunio's object is to formulate protocols to define guidelines that may make effective the use of computer aids by disabled and elderly people.

www.novilunio.net



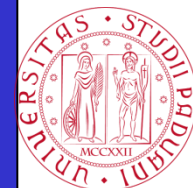
Philosophy

perception – emotion – experience – movement –
communication – autonomy

Novilunio community has closely observed reality
and the disability phenomenon, and has tried to
single out the fundamental moments in one's life.

This has shown that phenomena such as
perception, emotion, experience, movement,
communication and autonomy are fundamental to
the human life.

Accordingly, we have outlined a “natural” path to
develop our professional activities.



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HOME

Honor Our Memories Everyday



PERCEPTION

In order that a human being can perceive the reality surrounding him/her, he/she must be necessarily provided with perceptive organs.

Our senses – smell, hearing, sight, taste and touch – are human's instruments of sensorial perception.

Human can have other kinds of perception

perception
emotion
experience
movement
communication
autonomy



EMOTION

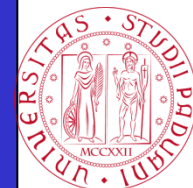
What we perceive is codified and transferred to our nervous system.

Each kind of perception makes us generate some affective answer.

We all generate emotional reactions which at times are even imperceptible.



perception
emotion
experience
movement
communication
autonomy



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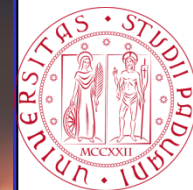
EXPERIENCE

Having generated some kind of feeling, we live through an emotional experience that enables us to establish a connection between what we perceive and every other thing.

Indeed, this emotional reaction enables us to remember things better and build stable relational processes.



perception
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autonomy



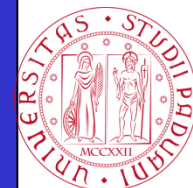
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MOVEMENT

Each kind of function effects a change from one state to another. The human locomotor system has underwent a long evolutionary process which has culminated in the present human motorial functions. Man is a bipedal being, has upper limbs free to move even during his walking, possesses an extraordinary forefinger-thumb pinch and an articulatory system for phonation...



perception
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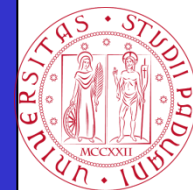
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COMMUNICATION

Communication enables man to perceive reality, interact with it and establish relationships with his fellow creatures and the environment surrounding him. Man is a social being, thus communication is the founding element in any society. Through his intellect, man can conceive and effect several forms of communication, from mime expressions to words, from writing to several forms of art.

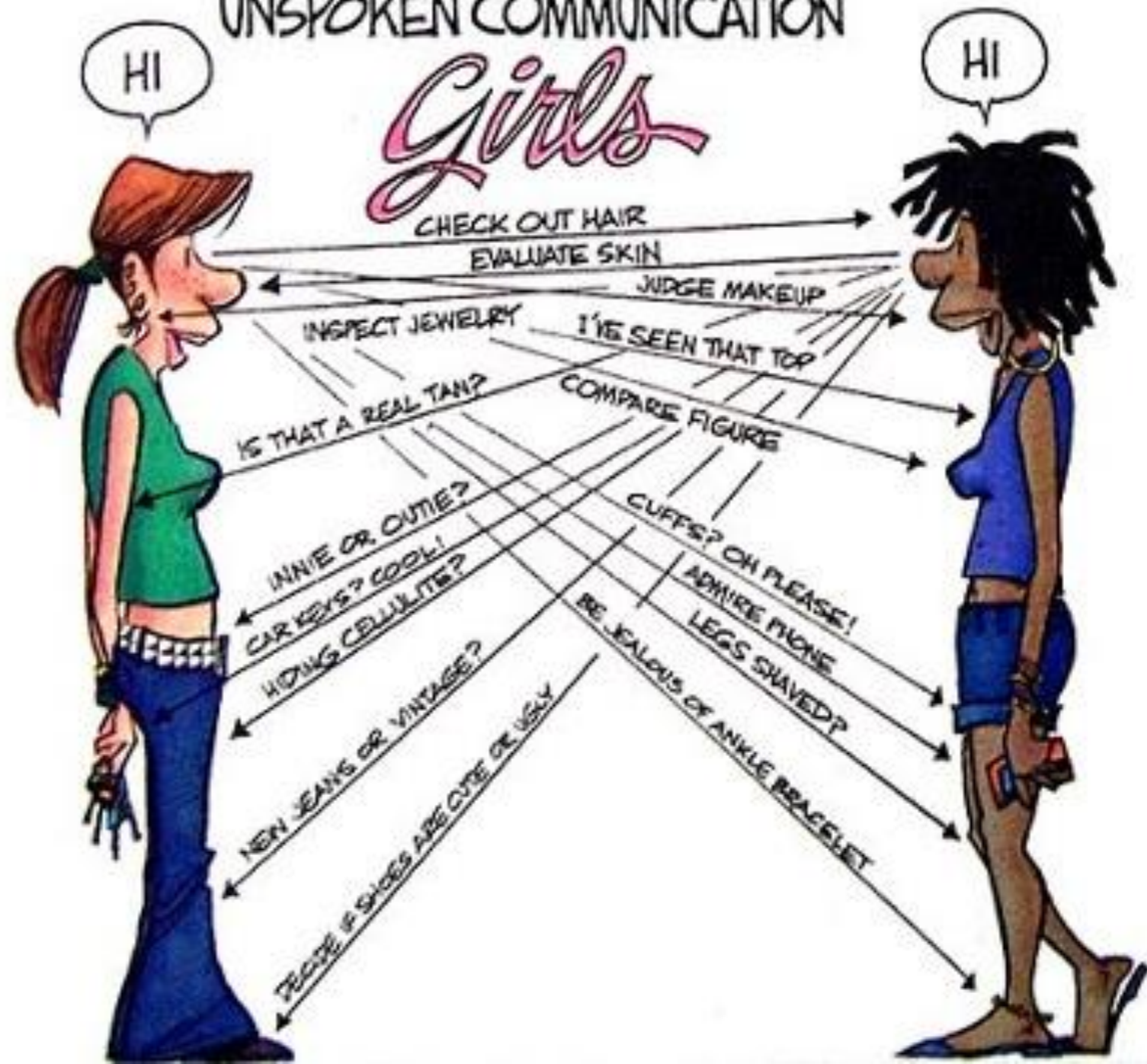


perception
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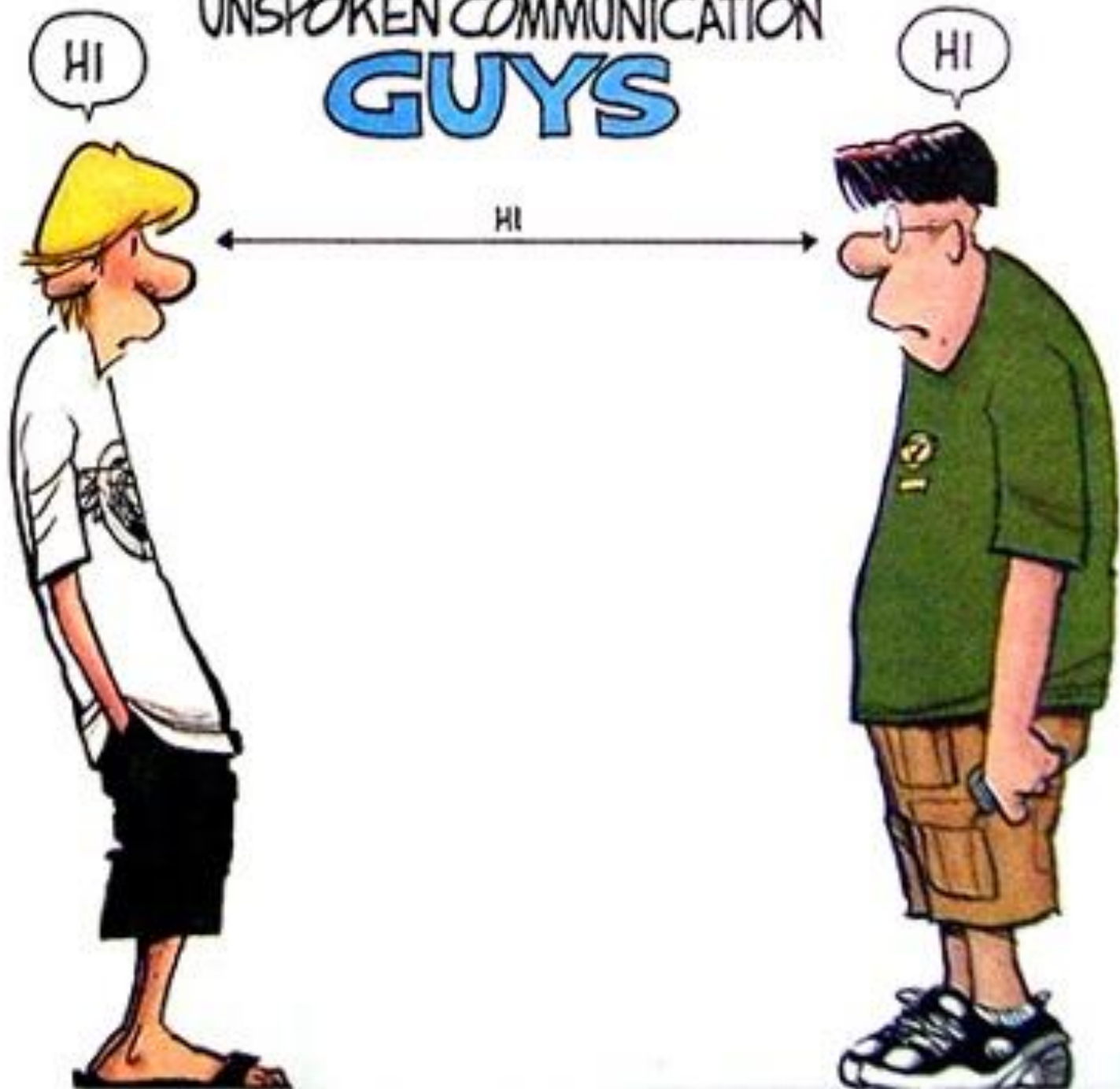


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UNSPOKEN COMMUNICATION



UNSPOKEN COMMUNICATION
GUYS



AUTONOMY

The capability to move and communicate enable man to maintain his own identity.

Man wants to be autonomous and, as a general rule, find his own place in society.

It may seem a paradox, but the fact is that man needs to feel he is totally independent from his fellow creatures and, at the same time, perfectly integrated to society.

It is necessary that everything that may define a single person as unique and special may come out.

At the same time, man needs to experience the awareness that he is interdependent not only with his fellow creatures but also with the other beings.

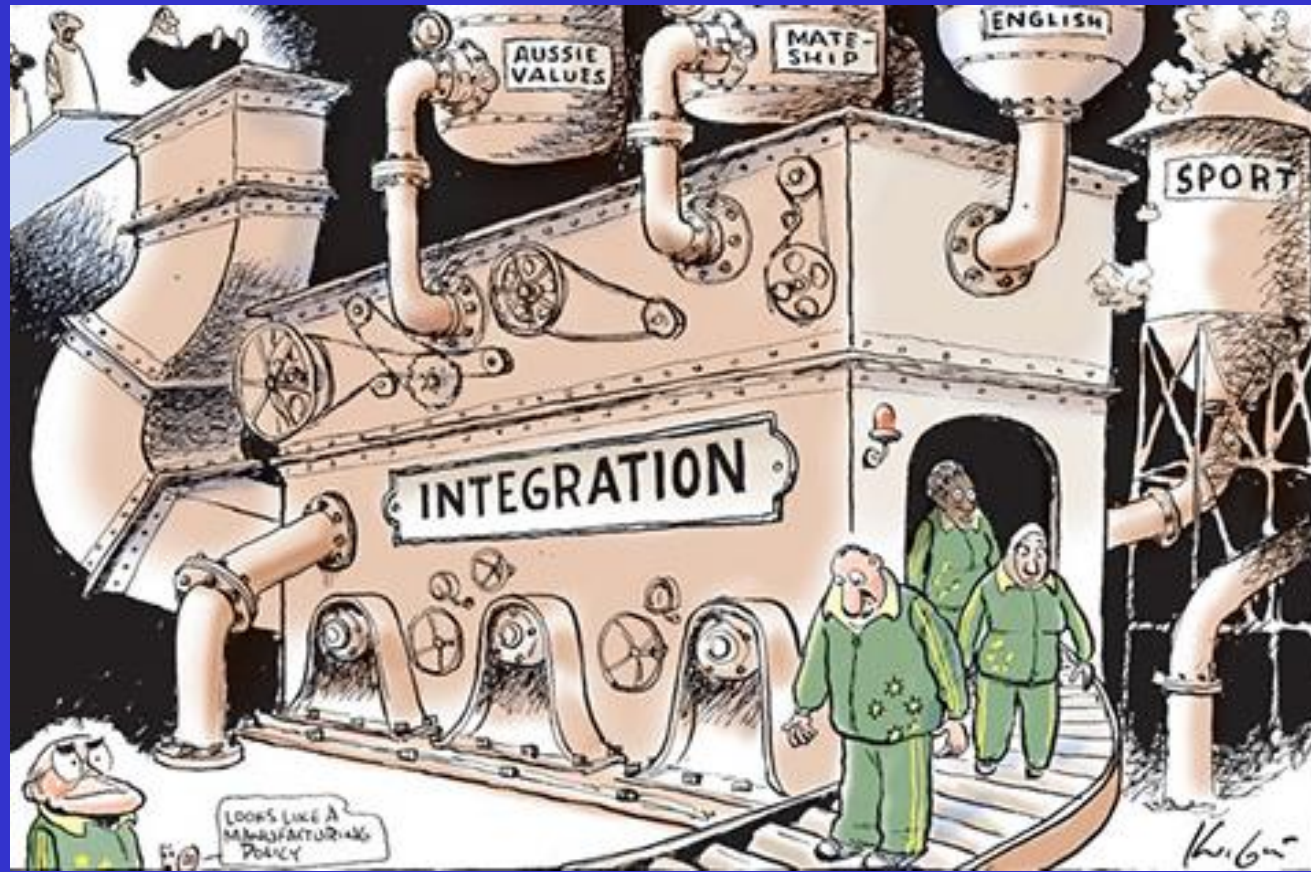
perception
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INTEGRATION

Our path leads us to a final result.

Man can produce civilization on condition that he is enabled to perceive, elaborate and live through experiences, and move, communicate and be autonomous.



perception
emotion
experience
movement
communication
autonomy

integration



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movement



emotion



perception



communication



experience



Novilunio

network
community



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General aims

- **Standard language**
- **Shearing knowledge**
- **Use of methodology / protocols**
- **Link between organizations**

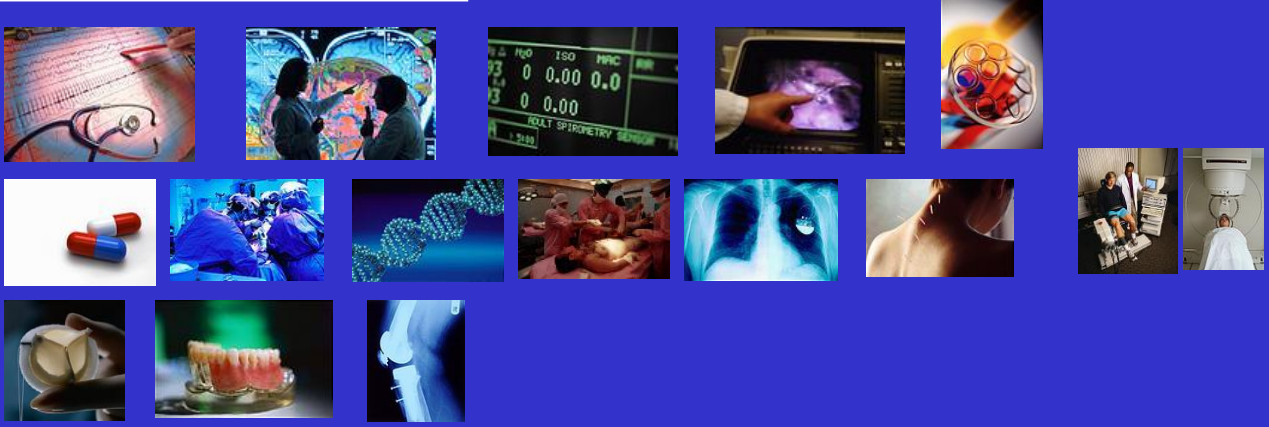


MEDICIN & TECHNOLOGY

DIAGNOSIS

THERAPY

PROSTHESIS



AID TECH

Survival Tech

Vital Functions

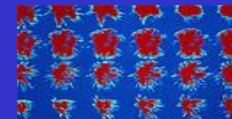
Ability Tech

Function capabilities

AID TECH ABILITY

Survival – Vital Functions

Ability Tech - Cognitive



DIRECT



vision



audition



speech

STRATEGY



vision



audition



speech



motion



neuromot



cognitive

What is Assistive Technology – Video!

Returning independence through
technology

A...access

C...communication

E...entertainment

Individual solution

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Definition of AT device

Any item, piece of equipment,
or product system
whether acquired commercially off the shelf,
modified or customized,
that is used to increase, maintain, or improve
functional capabilities of individuals with
disabilities



ASSESSMENT

A review of the patient's history as provided by parents, teachers, therapists and care givers

An individualized evaluation by a multidisciplinary team. This most often occurs at A.T. Labs.



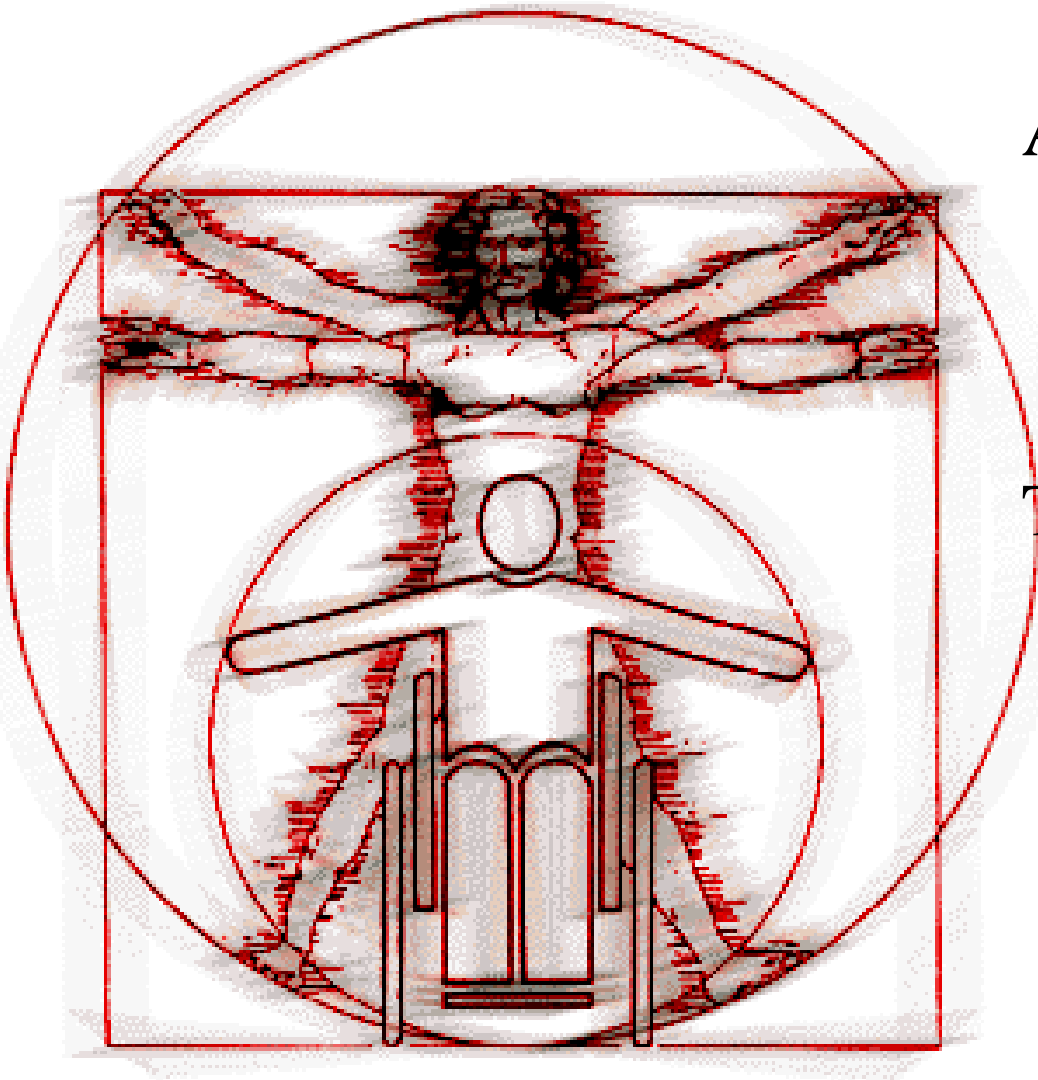
← USER

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PLANNING

A written report with recommendations for assistive technology implementation.

The report provides specific product information in order to assist the school district, community center, agency or parent in implementing recommendations expeditiously.





Combine the Grace of
Macintosh with
the Power of UNIX



DEVELOPMENT

The Computer Aid
Lab supervises the
development of
the Life and
Technology
Project and
training

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FOLLOW-UP

Keep in touch with
the patient!

How the A.T. aid is
going?

Update...

Matching person and technology... Video!

What color do you want?

Do you want a claw, a prosthetic hand or a hook?

Individual requirements... to accept technology

Quality of life

Autonomy and independence

Matching person and technology

Matching Person and Technology

ASSESSMENT PROCESS

[HOME](#) :: March 9, 2016

Matching Person and Technology (MPT) Assessment Process

Continued advances in technologies have created a wide range of options in technology functions and features. As a result, consumers and providers often report feeling overwhelmed and confused when faced with decisions regarding device selection and use. In response to this, and in hopes of providing a more personal approach to matching individuals with the most appropriate technologies for their use, the Matching Person and Technology (MPT) assessment process was developed.

The MPT process contains a series of instruments (self-report checklists about consumer predispositions to and outcomes of technology use) which take into account

- the environments in which the person uses the technology,
- the individual's characteristics and preferences, and
- the technology's functions and features.

Characteristics within these three components can each contribute either a positive or a negative influence on technology use. If there are too many negative influences, the chance of the technology being successfully used is greatly reduced. In fact, the technology itself can appear perfect for a given need, but if the user does not possess the appropriate personal characteristics or does not receive needed support, that perfect technology may go unused or be used inappropriately.

The MPT process contains a series of instruments:

- For persons considering any kind of technology, but believe there may be a general reluctance to use technology, the *Survey of Technology Use (SOTU)* helps identify technologies an individual feels comfortable or successful in using so that a new technology can be built around existing comfort or success.
- Technology-specific forms are:

<http://www.matchingpersonandtechnology.com/>

Client/Patient/Caregiver Perspectives

Augmentative and Alternative Communication Use and Acceptance by Adults with Traumatic Brain Injury

Fager, S., Hux, K., et al. (2006).
Augment Altern Commun, 22(1), 37-47.

Added: July 2011

Description

This study examines the use and acceptance of augmentative alternative communication (AAC) in adults with traumatic brain injury (TBI). Data from speech-language pathologists involved in AAC treatment was gathered via a questionnaire.

Conclusions

- Results revealed that adults with TBI generally accepted both high and low tech AAC recommendations and the majority utilized letter-by-letter spelling to convey messages.
- The authors indicated that abandonment of AAC system “reflected the loss of facilitator support rather than a rejection of the technology” (p. 46).

Accuracy, Efficiency and Preferences of Survivors of Traumatic Brain Injury When Using Three Organization Strategies for Retrieving Words

Burke, R., Beukelman, D. & Hux, K. (2004).
Brain Injury, 18 (5), 497-507.

Added: July 2011

Description

This study compared the use of three organizational strategies (semantic topic, geographic place and alphabet/first letter identification) to determine the accuracy and preferences of individuals with brain injury using augmentative and alternative communication (AAC).

Conclusions

Twelve participants retrieved words using three experimental conditions and rank-ordered preferences for AAC retrieval. Results of the study found that participants were significantly more accurate and efficient using alphabet strategy, but indicated preference for using the topic strategy. While further research is warranted to determine the accuracy and preferences of AAC organizational strategies at the conversation level, the findings from this study should be considered.



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Current and Future AAC Research Considerations for Adults with Acquired Cognitive and Communication Impairments

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perception – emotion - experience
movement - communication - autonomy



Grazie