Proiect de cercetare- Ungurean Catalina Iuliana

**Adaptive Multimodal Inclusive Design.**

**Integrating Permanent and Situational Disabilities in Online Education**

There is a rapid expansion of online education, which enlightens the urgent need for accessible learning environments. Traditional approaches in Human-Computer Interaction and Accessibility focus primarily on permanent disabilities. For example, studies concentrate on visual, auditory or motor impairments. Current multimodal interfaces that incorporate voice, gesture and text offer partial solutions. What is important to note for our research is that they often fail to account for situational or context-dependent disabilities, such as temporary hand unavailability, noisy environments or visual fatigue. We will integrate both permanent and situational disabilities, redefining the concept of disability as a dynamic and context dependent one. Also, it will combine multiple interaction modalities such as voice, gestures and text, allowing real-time adaptation based on environmental, cognitive and physical constraints. This article will consider a conceptual framework for Adaptive Multimodal Inclusive Design and outline principles for future implementation and evaluation in online education.

**ACM Computing Classification System:**

* [Human computer interaction (HCI)](javascript:void(0)) - [Interaction paradigms](javascript:void(0)) - [Web-based interaction](javascript:void(0))
* [Accessibility](javascript:void(0)) - [Accessibility design and evaluation methods](javascript:void(0))

**AMS Mathematical Subject Classification:**

* 68U35 - Computing methodologies for information systems (hypertext navigation, interfaces, decision support, etc.)