Chapter 14
Individuation and Diversity: The Need for Idiographic HCI

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ABSTRACT
Nowadays, our life is characterized by an increasing complexity and variety in the use of technology: highly idiosyncratic experiences in technology use have become rule rather than exceptions. Such “normal” variety has an impact on the field of Human-Computer Interaction by posing a new challenge, that of ‘individuation’, i.e. passing from research and design for the ‘average user’, to research and design for ‘individuals’. We maintain that HCI is in the middle of such a transition and that it should actively develop proper means to address the complexity of idiosyncratic uses of technology. Such a transition will mark a shift from ‘nomothetic’ to ‘idiographic’ approaches.

INTRODUCTION
Some time ago, Alexander Luria posed the distinction between ‘classical’ and ‘romantic’ science in his autobiographic book “The Making of Mind: A Personal Account of Soviet Psychology” (Luria, 1979). According to him, the classical approach in psychology reduces phenomena to their elementary components and achieves understanding by means of abstract models, with the ultimate consequence of failing to appreciate the properties of the living whole. Romantic science should, instead, be concerned with the understanding of “the way a thing or event relates to other things or events.” The more perspectives we include in our analysis, the closer we get to a full understanding of the qualities, characteristics and rules of the subject under study.

Luria applied the romantic approach to two famous cases described in (Luria, 1968) and in (Luria, 1972). The former book “The Mind of a Mnemonist” is about a hypermnestic man, with a literally limitless memory. His memory capabilities were assessed and studied by Luria, who also renders a vivid portraiture of how the subject constructs the world, of the way he behaves. In the
latter book, “The Man with a Shattered World”, Luria describes a memory impairment, which affected the Soviet soldier Zasetsky after a bullet wound to the brain. The book is about Zasetsky’s struggle to relearn even the simplest mental activities, to put together and make sense of the fragments of reality in his head. Again, the book is more about the personal drama of the Zasetsky, and his efforts to regain an orderly relationship with the world, rather than about the study of cognitive processes per se. In both books, Luria pursues the romantic science approach by seeking empathic identification with the patient’s experience, by describing the case under study from both the external perspective of the psychologist and from the patients’ perspective.

The challenge that Luria addresses in the two books is not new in psychology. It concerns the opposition between the nomothetic and the idiographic approaches. The nomothetic approach studies events and persons as examples of some general law. Its aim is to identify the general features of psychological processes, to describe the “average behaviour” across individuals, and to establish rules applicable to the largest possible number of persons. On the other hand, the idiographic approach studies events and persons as unique cases. Its aim is to understand specific instances of behaviour of one single individual.

In this contribution, we claim that the tension between the nomothetic and the idiographic approach is becoming increasingly central in HCI research, and that HCI should actively develop means to cope with the increased complexity and variety of our life, in which highly idiosyncratic uses of technology have become the norm rather than exceptions.

LONG TERM DYNAMICS IN TECHNOLOGY USE AND HCI

Many changes are affecting the relationship between humans and technologies. We will briefly review some of them with the aim to outline some long-term dynamics and to show how research on diversity and individuation is increasingly becoming central in HCI.

The Dynamic Use of Technology in Work and Everyday Life

The use of technology could be considered as restricted to work and being relatively stable till the Eighties (technology was only used in certain specific workplaces in highly standardised situations), when the ‘information revolution’ has brought about some drastic changes, making technology widespread in many different contexts and situations of use (Malone, 2004). The relationship between the human and the machine could not be treated as a fixed one any longer. It started to depend on the social context, on the material used in the interaction, on the contents of it. Moreover, the relationship became increasingly shaped by the specific user and on her/his specific goals.

No one could have taken home her/his working tools from the Tayloristic factory, while working tools are now part of our houses and of our personal life. Nowadays, it is possible to work at home: technology is everywhere. At variance with the Tayloristic era, today’s workplaces are very much similar to each other, and not very different from entertainment and leisure situations: all imply the use of computers. Those who lack computer skills are at risk of being cut off from work. However, the digital divide is not limited to work, but is also present in everyday life and affects people’s social relations.

The supply side is no longer setting the pace of the market. The demand side is doing it. And demands are differentiated by nature and changing rapidly. In responding to demands, work has to cope with such variability. Work is aimed to deliver novelty and innovation, thus constantly requiring novel activities in uncertain conditions. It is made of often quite new activities to be performed in unfamiliar settings. In these days, when markets
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