

# On Technology-Supported Education

## - Paradigm Shift in Language Teaching -

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### 1. Introductory Remarks on Education and Technology

In order to preclude a nowadays very fashionable misconception, a very common automatism, in this connection, I want to begin by expressly drawing your attention to the fact that the state of affairs referred to as ‘technology-supported education’ is not an exclusively modern phenomenon.

On the contrary the social institution ‘education’ has always been based upon the distinctive technological mode of the respective socio-historical formation. In every – historiographically accessible or anthropologically inferable (in other words, theoretically reconstructible) – stage or manifestation of the so-called ‘human civilisation’ the adoption and application of the epochal, socially formative technology has been constitutive for education. That is, since the onset of human thought, institutional education has always been nothing other than ‘technology-supported education’.

Although the scientific research still does not want to make any binding statements in this respect, I would not hesitate to maintain that the cave paintings had been the key technology underlying the educational modus of the prehistoric hunting-and-gathering societies. Besides ritual ceremonies they must have served for teaching hunting techniques and other contents of social relevance. The technics such as using a flint or another type of hard stone for simple engravings or scrapings, finding ferric oxide-containing minerals and charcoals or the like for red and black colours respectively, sometimes preparing some sort of binder or extender wherewith the pigment was mixed, etc. constituted the educational technology of that time.

Analogously, the education in the edubas (scribal schools) of ancient Mesopotamian societies was based on a technological level defining characteristics of which manifested themselves among other things particularly in such technics as manufacturing tablets from clay, cutting and forming styluses from bamboo reeds, etc.

The clay tablets and styluses were for the prospective functionaries of Mesopotamian royal court – priests, scribes, chroniclers, tax collectors, warlords, etc. – and their preceptors what ICT technology is for the students of modern universities – that is for the future officials, administrators and executives – of present-day developed countries.

What’s currently happening in connection with the institutional education in these highly developed industrial countries is not a quantitative widening of infrastructural possibilities. It is not that a new type of technically enriched classroom opens up as an additional and thus facultative teaching space, but, on the contrary, it is nothing less than an ineludible fateful transition into a qualitatively new mode of education

### 2. Some Fundamental Thoughts on Language Acquisition and Learning

Elsewhere I divided the entire history of human societies with respect to language acquisition into two immensely asymmetrical periods: “Reflections on language acquisition and related phenomena involve two clearly delineable domains of social space-time. The first one spans a practically incalculable period from the little known beginnings of language up until the maturity of the latest variation of human social organization. And the second one is the very modernity, that – ensuing from the

former – encompasses the present day stand of so-called human civilization. The first phase distinguishes itself in that language acquisition constitutes therein the basis, the matrix, the indispensable condition, of anything human. It is the primary matter whereof the differential human is made. Both the emergence of a science of language and the institutionalization of guided language learning, on the other hand, are characteristic to the modern commodity society which marks the beginning of the second phase.” (Gülbeyaz 2012)

Both in the same place and in a subsequent paper, where the line of reasoning was developed in further detail, I criticized and repudiated the prevailing theories of language acquisition all of which rest on a two layered dichotomy. On an abstract theoretical level this dichotomy consists in postulating a fundamental distinction between ‘the language in general’ versus ‘individual languages’ (cf. Humboldt) or, in other words, between an ‘internal grammar’ or ‘universal language’ and an ‘external language’ (cf. Chomsky). On a more concrete, more practice-related layer the said dichotomy takes the form of differentiating between ‘native language’ – in other and more decent words, ‘first language’ – and ‘foreign language’ – in other and seemlier words, ‘second language’.

“The act of learning [...] requires [...] a certain level of socialisation. Consequently, the acts of learning and teaching could be employed only in connection with socialised individuals. I opine that the scientific discourse is far from knowing the nature and the differential features of the relation and interaction between babies and young children and their physical and social environment. Even more seriously, I am of the opinion that it is legitimate to consider it categorically impossible for a socialised mind – or a thinking mode / equipment – to cogitate adequately about a pre-social mind. After thus redefining it, I don’t see any problem in realizing the act of ‘learning’ as the determining and differentiating criterion of the above mentioned dichotomy. Consequently, I consider it to be

appropriate, and propose to designate the phenomenon which is referred to as ‘native language’ or ‘first language’ in the language acquisition theories of Western provenance as ‘not-learned languages’, and to designate the phenomena referred to as ‘foreign language’ or ‘second language’ as ‘learned languages’” (Gülbeyaz 2013)

For practical purposes I would, furthermore, postulate two subtypes of learned-language acquisition. I am presumably not the only one who is of the view that the question whether the acquisition of a learned language takes place in a social milieu which is the natural home of the target language, or in a social space-time segment where the target language is not spoken as everyday language. Borrowing a term from structural geology, I will, provisionally, name the latter subtype ‘allochthonous learning’. The specific dynamics and requirements of this type of language learning make the guided language learning necessary and thus justify the institution ‘teacher’ as a constitutive component of the learning process.

### **3. ‘Teacher’ in Digitalised Classroom**

ICT equipped classrooms have already become not only the indispensable and irreducible infrastructure of modern guided language learning, but also they altered the entire set of components and parameters of the process of guided language learning dramatically. Needless to say, also the institution ‘teacher’ or ‘instructor’ did not remain untouched by this revolution. And what’s more, it is, as it seems, precisely the component of the process on which the on-going process of digital restructuring and reconfiguration the current segment of the social space-time continuum enfolds its effects most rigorously. The institution ‘teacher’ as we have known it so far is now being dismantled. The primary arena for this – or, in a way, the scene of violent metamorphosis – is the new classroom equipped with digital technology. It is this new physical teaching environment where the moment of guidance in guided

language learning process is being re-approached and redefined on the basis of qualitatively different premises.

The still dominating model of ‘teacher’ in the language teaching sector of the developed capitalistic economies is heavily burdened – among other things – with a multi-faceted biologism which expresses itself on the practical level as a distinct set of thought and action patterns which I subsume under the term ‘native-speakerism’ (cf. Gülbeyaz 2014). Seen in this light, the institution ‘teacher’ appears ultimately as the unsurmountable hurdle in the process of language education.

#### **4. Concluding Remarks on the Impact of ICT-Equipped Classrooms**

To conclude, I will jot down a few elemental words about the present and future ramifications of ongoing process of digitalization in teaching and learning spaces. Once again, I believe it is reasonable and functional to group observations, inferences and predictions in this connection in two classes.

On the underlying and load-bearing theoretical level, the systematic use of computer networks and further ICT-equipment in the language classrooms results in a thoroughgoing transformation of the entire classroom event. It digitizes the interactive subspace assembled and shared by both the learners and the teacher(s) where the entire signal traffic among the participants of the teaching/learning process takes place. From a semiotic viewpoint the process of digitisation is first and foremost a radical trans-semiosis. It converts the full range of qualitatively differing forms of information – i.e., bluntly discrete types of semiosis – into the one and the same mode of signification. The fact that the underlying binary code consist of only two simple digits of the same rank ensures that everything in the classroom event is transformed into the one and the same stuff.

In terms of the elementary texture and configuration of the process of guided language learning, the above described development results in the democratisation of

the entire field of language teaching. This metamorphosed interactional subspace leaves no room for hierarchy. There is no room therein for socially predetermined power structures.

Not unlike the dream-catchers of the Ojibwe people which filter out the nightmares from the dreams of children, the latticework woven out of binary digits – i.e., the network which holds the microcosm ‘classroom’ together – is impermeable to resentments or other irrelevant emotions.

On the practical side of the classroom event the ICT-equipment enables the active participation of the real learners – as opposed to assumed or institutionally dictated learners – as equal partners in the teaching and learning process, so that the possibility of a new and revolutionary mode of curriculum production is coming into existence. In this new production mode the curricular material is produced on spot and in connection with the real needs of the learners interactively and collectively.

Real-time demonstration and correction, signal amplification, simultaneous reduplication of the information on different channels of perception etc. are but a few of the many functionalities worth mentioning that come with the new ICT-supported classrooms.

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