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SCHOOLS IN A MEDIA-RICH WORLD¹

Opportunities and Constraints 'Changes of Environment' in Civilisation and Informal Learning

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The present study is an essay-like writing based partly on a selective review of the relevant literature and partly on the experiences gained during a multi-year university course. Its thematic foci are the following: mediated environment and learning; information vs. knowledge; the world of media with its values and models; 'digital folklore'; and 'homo informaticus' as a new human race. It gives a description and analysis of the sources and background of new metaphors (such as 'knowledge-based society'; 'European Learning Space' or the 'European dimensions' of education) appearing in teaching and learning environments. The study discusses the following questions: is the mediated environment an 'agora' for wider social dialogue or a tool for the massive manipulation of the masses? What is the role repertoire of the teacher in the new learning environment? What dynamics are at work in mixed-medium (image and text) communication trends in schools and society; how is the image-text ratio changing and what conclusion can be drawn from this change?

Keywords: school, learning, environment, values, teacher roles, media, digitalisation, postmodern, homo informaticus, demonstration, visualisation

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¹ In everyday speech this usually denotes electronic broadcasting and the time spent watching television. In education this signifies the sum of various digital technologies (ICT) as a medium or intermediary. (Media is the plural of medium.) The participants of the 2007/2008 'Teaching and learning' (Didactics) series of lectures of our doctoral program strongly urged us to pen this chapter and also authorised us to use their proposals and observations in our work. We would therefore like to extend our special thanks to the following doctorate students: Andrea Árokszállási, Bernadett Bajusz, Zsanett Bicsák, Ilona Fekete, Attila Gál, Attila Kenyeres and Péter Kristóf Nagy.

Schule in der mediatisierten Welt: Möglichkeiten und Grenzen, „Umgebungsveränderung“ der Bildung und informelles Lernen: Diese essayistische Abhandlung basiert teils auf der Aufarbeitung von Fachliteratur, teils auf langjährigen Erfahrungen bei einer Seminarreihe im Hochschulbereich. Thematische Schwerpunkte: mediatisierte Umgebung und Lernen; Information vs. Wissen; Werte und Modelle der Medienwelt; „digitale Volkskunst“; neuer Menschentypus: „homo informaticus“. Vorstellung und Analyse der Herkunft/des Hintergrundes der neu entstandenen bildlichen Ausdrücke in der Lern- und Lehrumgebung („Wissensgesellschaft“, „Lernraum Europa“, „europäische Dimension im Unterricht“). Im Beitrag dargelegte Themenkreise: mediatisierte Umgebung als Agora des breit angelegten gesellschaftlichen Dialogs vs. Mittel der (Massen)manipulierung der Massengesellschaft; Repertoire der Lehrerrollen in der neuen Lernumgebung; Dynamik der Kommunikation über *kombinierte Medien* (Bild und Text) in Schule und Gesellschaft, Veränderung des Bild-Text-Verhältnisses und die zu ziehenden Schlussfolgerungen.

Schlüsselbegriffe: Schule, Lernen, Umgebung, Wert, Lehrerrolle, Medien, Digitalisierung, Postmoderne, homo informaticus, Demonstration, Darstellung

In place of a foreword

Similar to the issue of ‘globalization’, albeit possibly less burdened by emotions and tensions, the subject specified in the title of this paper divides the general public and professional circles alike: followers and opponents equally seek and find strong arguments, naturally biased, to support their position.

It is a fact: not only have we arrived on the threshold of a new era of civilisation, we are already living in it (bank cards, mobile phones, internet, e-learning, interactive whiteboards etc.). We may not wave away either defining our relationship to it or making a clear statement concerning it, and therefore primarily wish to clarify what presumed effects the developments in this field have or could have on our pupils, the generation of the future. Or to put it in a different way: what are the social costs of these developments? From a scientific perspective: nowadays, teaching and education at school are at a so-called hermeneutic baseline because the former canon of school education and its methods of preservation and transfer have been equally called into question. It is therefore essential to mentally work on the issue at hand with the intention of careful interpretation, and to avoid the pitfalls of nostalgia, excessive normativity and/or cultural pessimism as much as possible. Of course we know from theoreticians in the field of philosophy of science (Karl Popper, Thomas Kuhn) that no fully value-free, presumptionless and ‘objective’ language exists to describe phenomena and perceptions. As a result – even if we think it is not possible to entirely eliminate our bias – in the spirit of ‘probité intellectuelle’, an (intellectual) moral commandment, we shall neither conceal nor hide them.

While discussing and elaborating on the topic, we might change our viewpoint, but we should not for a moment forget that our pupils, youths want to succeed here and now, in this world and in this environment.

As an introduction, let us examine two scenes from this new world.

- For instance, digital displays that direct customers to the next available teller in banks may not speed up processing, but they clearly improve spirits and the general atmosphere. The social gain: we no longer suspiciously eye one another to catch those arriving later but trying to jump the queue.
- ‘I read some news about your latest services on the internet. I would like to get some detailed information’, were the words with which a lady well past her prime in life, over eighty, turned to the service representative in a bank.

1. Learning and traditions – an historical perspective

For many centuries, European societies saw each new generation being born into a system of production, social structure and culture that were handed down from one generation to the next. The basic experience of people at the time was probably that things were constant; things changed slowly, almost unnoticeably within the lifetime of a generation. A child was therefore born into a traditional framework of activities and norms governing life and behaviour, where family, relatives, the village, and the congregation watched over the rigorously controlled process of socialisation, becoming a fully fledged member of society.

Early schools (in monasteries, chapters, and towns) provided the contents and framework for what had to be and could be learnt. Their main task was to ensure a steady supply of scholars for the clergy and religious institutions (‘the replacement of human resources’, as we would say nowadays). The studies leading up to the creation of a ‘masterpiece’, testifying to the knowledge and skills acquired within a particular handicraft profession, occurred within guilds and over the course of years spent travelling and learning abroad (peregrination). Finally, learning about agriculture and related crafts (wagon, cart and barrel making, horseshoeing etc.) took place partly within the family, but certainly within the bounds of a village. We are talking about the centuries history calls the age of feudalism; however, elsewhere we may also read of classifications where these centuries preceding modernisation are labelled the premodern era.²

The development of European societies then reached a stage when the tasks of teaching and educating children were transferred to a dedicated network of institutions, the school system. (We are talking about the establishment of the school system that was geared towards satisfying the needs of so-called modern mass production, the manufacturing industry and their hunger for labour, from the 19th century.) Over time this development also led to the (involuntary) expansion of the original functions of school (child care, social care: catering, mobility, satisfying labour market requirements etc.). This forced expansion of function placed a great stress on this social institution (and strains it to this day), as the infrastructure on the ‘supply’ side did not grow at a rate and to a degree that the demands (would have)

² The periodization employed in our paper is closer to the one used in cultural studies than that of classic history. We are flexible in this regard.

called for. Consequently, this social institution had no choice but to struggle and nevertheless try to satisfy expectations amidst the skyrocketing social rights and access to education and a modest growth in available resources. Altogether, we can say that the educational infrastructure supporting teaching and education, a responsibility of maintainers, stood at a comparable level in the majority of school systems familiar to us, and in this regard the educational systems of the state socialist era more or less stood their ground against the systems in place in capitalist countries (education and career development consultancy, school psychologist network, child benefit and custodial services etc.).

Following this logic, we arrive at the present day, the age of digital technology and the internet, when philosophers and theoreticians of cultural studies (TAPSCOTT 1998; GYÖRGY 1998; NYÍRI 2001; BAUMAN 2002 and others) are attempting to work on, describe, and reflect upon the characteristics of the 'postmodern' (Jean-François Lyotard).

The postmodern is an age of turbulent times and a fluid uncertainty, where things only have a (changing) utility value – teaches Zygmunt Bauman, renowned contemporary philosopher in his seminal work, *Globalization*. In this fluid world 'you are as good as your last success'. No other measuring stick exists, only the last situation and success or failure in it. This approach leaves no room for 'permanent values', and even some kind of anthropological constant seems to be always challenged. Things only have a situational value. The fluid age is ruled by relativity, with flexible adaptability being the chief value. In this world, in addition to books, shelves mostly offer software for completing various programmes: we pick them up, use them, and can forget all about them once they have served their purpose, i.e. to assist us in completing a specific task. Software offers no 'eternal' truths, as opposed to classical works of art. The principle of their operation is to 'use and replace with something newer', something that can be reliably counted on (manufacturers make sure that newer, better, even faster and cleverer offerings are again and again available, affordable and ready to purchase). The only thing to know is how to extract the information.

2. The new metaphors and their background

The change in the learning environment is clearly demonstrated by the appearance of a myriad of new terms and concepts. Some of them indicate a European or even global expansion of the world of learning and education (European higher education area; European dimensions of education; internet); others point to an increase of time and civilisation changes in this field (lifelong learning – LLL; knowledge-based society/information society); and yet others to a transformation in the way students and pupils approach learning ('just-in-time' and 'just-in-case' learning) and the interchangeability of sender and receiver, as well as technological and technical possibilities allowing for interactivity ('YouTube').

Interpretations here are diverse, occasionally strongly debated. Based on EU

materials (conference documentation, professional papers, committee statements, etc.), we may conclude that a general consensus appears to be shaping up for instance on the issue of the ‘European dimensions of education’. In other words, this adjective-noun combination basically reflects an attitude, with comparison as its central component, and developments shaping up or already established within the different national/nation state frameworks – cultural life: philosophies in teaching and education, educational institutions, trends in art and political ideologies or for the matter political trends – their comparison and comparative analysis usually meant by this professional metaphor. Actually, this interpretation applies the method of comparative analysis, a technique long employed for evaluation and research in certain fields of science (literature, linguistics, pedagogy, etc.), to understanding this concept.

The author also participated in a debate concerning the concept of ‘knowledge-based society’ that developed at the defence of a DSc thesis held at the Hungarian Academy of Sciences. Some were of the view that this construct principally reflects that a sufficient level of proficiency in using modern technology and techniques for living with it are prerequisites to successful social existence in the current networked, internet-based globalised world. However, representatives of the other (minority) view were posing the question of how to treat the knowledge of earlier societies that, as history teaches us to recognise, did in fact possess sufficient knowledge to sustain their social order and to transfer their culture. Had it not been so, we would hardly know anything about them today, they reasoned. What shall we call these former social formations? The societies of ignorance?

We cannot stop ourselves from quoting a longer and more radical passage than the former train of thought from a study on this topic:

If the world of knowledge is fundamentally based on facts, and the information pertaining to facts can be stored as data, the most important things to learn about are the usage regulations for the databases and information transfer systems. This can be assimilated without any trouble, and the effectiveness of its learning can be tested without questioning the meaning of facts and procedures. Information is knowledge separated from the connections of its meaning and abstracted from its cultural context. . . . The ideal of knowledge in modern humanism differs from this not in the richness of the knowledge package mastered. But in the fact that individual elements make sense in relation to the entire worldview, while factual information serves the improvement of the capabilities and virtues of the individual. . . . the evolution of personal skills, learning about truth and highlighting the meaning of tradition are no longer generally concerned the primary goals of education; it is satisfying the needs of the labour market instead. Unfortunately, this attitude clearly reflects the basic characteristic of postmodern knowledge. . . . Knowledge is power – the modern age history of the instrumentalisation of the human spirit is symbolically dated from this statement made by Francis Bacon. At the end of the road this connection is reversed: power is the chief characteristic of knowledge, and simultaneously its ultimate source, as the organisations concentrating technological, economic and political power in our days have a decisive influence on the system of research, education and public opinion-shaping, meaning that they are in a position to control the entire social cycle of knowledge. The school system is only expected to teach knowledge that readies future generations for filling the roles of-

ferred to them by a system of technological and economic rationality. (LÁNYI 2002, 93, our trans.)³

Although not absolutely necessary, we shall not decline taking a stand regarding the statement made in the above quote. Namely, we agree with its intellectual tone and in no way overly optimistic conclusion (especially in full knowledge of the entire text of the source quoted) in principle, as explained in the following.

Historically, it did so happen that humanity came into possession of powerful mental (intellectual) tools precisely by inventing reading and writing. Based on this, we can ascertain that the way of thinking and forms of acquiring knowledge (valid even in our times) that also characterise today's man were founded on and established by the written language itself. Communication via – and proficiency, skill and adeptness in – speech, followed by reading and writing had to therefore naturally occur first, as it is a well-known fact that lacking these skills we could not communicate with computers either. However, we are dealing with much more than this here – and this is what is fundamentally related to the conclusion formulated in the quote –, namely that only people who are well-read are capable of placing the content conveyed by the media into the appropriate context, understanding, interpreting and critically reviewing it! In absence thereof, we are left with 'information as knowledge separated from the connections of its meaning and abstracted from its cultural context'.

By virtue of the internal, generic relationship, this conceptual framework includes the internet as well as the databases it offers (e.g. Wikipedia), an inexhaustible source of information. Indeed, in addition to experiencing virtually infinite possibilities, anybody who has acquired ('downloaded') data or information from the internet may also count the sense of loss as a basic experience. Of course, one may 'surf' on a sea of 'links' and hypertext, but all this might be accompanied by depressing feelings (in technical terms: a sense of insufficiency).

³ Original text: 'Ha a tudás világának végső alapját tények alkotják, és a tényekre vonatkozó ismeret adatként tárolható, akkor a legfőbb tudnivaló az adatbázisok és információ-továbbító rendszerek kezelési szabályzata. Ez minden további nélkül elsajátítható, az elsajátításában nyújtott teljesítmény ellenőrizhető anélkül, hogy a tények és eljárások értelmére rákérdeznénk. Az információ: értelemösszefüggéseiből kiragadott, kulturális kontextusától elvonatkoztatott tudás. . . . A modern humanizmus műveltségisménye ettől nem az elsajátított tudáscsomag gazdagságában különbözik. Hanem abban, hogy ott az egyes elemek a világkép egészének összefüggésében nyerik el értelmüket, és a tárgyi ismeretek a személy képességeinek és erőnyeinek kiművelését szolgálják. . . . Az oktatás elsődrendű céljának többé nem a személyiség képességeinek kibontakoztatását, nem az igazság megismerését és nem is a hagyomány értelmének megvilágítását tekintik általában, hanem a munkaerőpiac igényeinek kielégítését. Ez a felfogás, sajnos, jól megfelel a posztmodern tudásvilág alapvonásának. . . . A tudás hatalom – a szellem instrumentalizálódásának újkori történetét jelképesen Francis Bacon eme kijelentésétől számítjuk. Az út végpontján ez az összefüggés a visszajára fordul: a hatalom a tudás legfőbb ismerve, egyúttal végső forrása is, mivel a technológiai, gazdasági és politikai hatalmat birtokló szervezetek korunkban döntő befolyást gyakorolnak a kutatás, az oktatás és a nyilvános véleményformálás rendszerére, azaz a tudás társadalmi körforgalmának teljes egészét képesek ellenőrizni. Az iskolarendszertől olyan és csakis olyan ismeretek elsajátíttatását követelik, amelyek a fel-növekvő nemzedéket alkalmassá teszik azoknak a szerepeknek a betöltésére, amelyeket számukra a technológiai – gazdasági ésszerűség rendszere kínál.'

Or is it possible that this has more to do with age: older people mostly feel aversion towards the options the world wide web represents, while youngsters are excited by them? It is more likely that the division in this regard lies not between young and old, rather the personal, internal habits and their differences may explain the diverse ways we approach our media-rich world and the internet. Accordingly, young and old people may equally be 'digital natives' or 'digital immigrants'. However, there are also – rather controversial – statements and points of view in professional literature (BALÁZS 2003; BUDA 2003a; HANCZÁR 2007; KLEININGER 2006).

Under these circumstances, amidst an orgy of postmodern concepts, a relativity of values and turbulences, what could one of the primary tasks of stakeholders, teachers, educational researchers and educators be? Chiefly to strive to enforce their true, intellectual vocation: to foster understanding and clarity as opposed to misunderstanding, ignorance and darkness via interpretation, but avoiding the traps of calques and paying meticulous attention to context.

But how do schools⁴ and the teaching staff look upon their role in this new digital environment which is increasingly ruled by sight and tinted by the relativity of values? Are schools correctly defining their own role if they set themselves the task of trying to compete with the world of flashing video clips and advertisements? It is easy to see that it would be a mistake for an institution to look for evolution in this direction. Should this not seem a wise choice, if the path of competing with a media-rich environment in speed and freshness seems impassable, how on earth could it respond to all this sensibly, efficiently and in the hopes of any success? Why so? Because the system of values demonstrated in the way youth (students, pupils) consume culture is moving away from the cultural canon⁵ offered by schools. We might even have the impression that this process of distancing is speeding up. We could have believed that the school era preceding NAT (the National Curriculum) was characterised by schools trying to stem the tide of mass culture and withstanding the pressures of 'pop culture'. Nowadays, we are of the opinion that the right to transfer and convey high culture or 'elite culture' was not successfully secured in the meantime. While today, in the post-NAT era, so-called field of specialisation content (drama pedagogy, motion picture culture etc.) and so-called cross curriculum recommendations (the teaching of learning, communication, career choice etc.) have clearly shifted towards 'useful' knowledge, practicality and 'functional' learning. These developments suggest that schools – showing wise restraint – did not start a game or competition against the media (which they would have surely lost). Instead, they tried to and are continuously trying to identify their

⁴ This paper uses 'school' in a general sense, primarily (but not exclusively) referring to institutions providing elementary education (eight-year primary schools) and comprehensive secondary level institutions (secondary schools).

⁵ It is apparent within professional circles how different approaches clashed precisely in determining school education (cultural canon) as part of the program development processes of the last years (framework curricula, NAT I., NAT II. and NAT III.).

role amidst the changing conditions, insofar as they are striving to rethink their options and restraints.

Nonetheless, we also need to acknowledge that the changing canons not only raise the issue of schools favouring one or another canon, power is also at stake here to at least the same degree: winning (potential) consumers, i.e. markets. (Remember the above quote: ‘power is the chief characteristic of knowledge’.) Could it be that this has been the case ever since schools exist, with only the bearer, technology of transfer and rhetoric of culture changing over time?

3. A media-rich environment and formal learning: ‘digital natives’ vs. ‘digital immigrants’

The aforementioned historical process was accompanied by an arsenal of teaching/learning aids and techniques: slate/slate pencil → blackboard/white chalk → textbook, epidiascope, projector, microscope, diorama, resource collection, map → programmed materials (60s) → educational technology (70s) → virtual learning environment/e-learning (90s and the turn of the millennium).

Altogether, we could say that today’s learning environment – at least regarding its possibilities – is radically different not only from the ‘slate/chalk’ learning environment but even from the world of the 70s that emphasized educational technology (audiovisual tools and educational packages).

And let’s not forget the implication of the opposition in the title: ‘digital natives’, young people, have already taken ownership of the new environment, the new (digital) life, and feel at home, while ‘digital immigrants’, teachers, do not yet feel at ease in this world. Although we are clearly familiar with studies and figures in this area (BUDA 2007), their analysis and interpretation – as described by the author – do not provide a basis for the above sharp contrast.

What is this about then? To be honest, we suspect ‘ideological’ bias. The paper from which we borrowed the opposed adjective-noun combinations used in the title (JUKES & DOSAJ 2003) contrasts the properties of the two base populations (students and teachers) in a table so perfect it is too good to be true. In brief: we are unable to wave away the suspicion that we may be facing some kind of apologia when browsing the tables of the indicated source.

What does the table tell us? That (American) youth like to be informed quickly through multiple multimedia sources. At the same time, teachers prefer a slower and more controlled transfer of information; moreover, they rely on fewer sources in this process.

Students enjoy situations where they can deal with several tasks simultaneously and in parallel, while their tutors opt for focusing on a single undertaking.

Pupils primarily enjoy working with audiovisual information, teachers with printed material.

Students take pleasure in searching and browsing for information randomly,

via hyperlinks, while teachers prefer information broken into packages or portions in a logical fashion.

Pupils have a dislike for continuous study and preparation. They usually learn 'just-in-time', at the last possible moment, while teachers employ a 'just-in-case' method of education while focusing on the exam requirements.

Pupils seek immediate confirmation and reward of their efforts. As for teachers, they tend to hand out delayed confirmation and rewards.

Based on the above, we may state one thing for certain: as things stand today, the digital environment has made clear gains, while the study habits of youth have changed in relation to this. Using a poetic metaphor – somewhat arbitrarily – originally referring to a different population set: today's students (or in a slightly archaic and ceremonious tone: educatees) are truly 'a new breed in a new soil'. Even after accepting this, the question remains: what of the division of work between pupils and teachers henceforth; how do these developments affect the teaching profession and 'role'? Will teachers themselves increasingly turn into 'digital natives'? Is their transformation inevitable, should they wish to continue in their vocation within an environment where conditions have already changed and are expected to continue in fundamental alteration?

Seeing the rapid shift in the environment due to the new technologies, one might conclude that the content conveyed, i.e. the message itself is not so important. To quote a decades-old statement of the Canadian philosopher MCLUHAN (1962), 'Medium is the message'. This oft-quoted prophecy has proven its potency, and the events and developments, or rather the substance attributed to these seems to point in this direction. We feel it is no exaggeration to state we have arrived at a dramatic turning point, upon which we are compelled to reflect in the spirit of the aforementioned 'probité intellectuelle'.

We believe that as long as societies require the transfer of knowledge perceived as the social norm to assume an institutionalised form, i.e. occur via schools, a decision about the cultural content offered within also needs to be reached. Another issue requiring consensus is how youth, at the end of their studies, are expected to give account of how far they had gotten and what level of knowledge they possess. Several different paths could of course lead up to the exam stage. However, skills ('competencies') can only be assessed at the exam through some kind of content ('educational material'), which after all requires determining the scope of common cultural knowledge all pupils are expected to possess at an exam. This is precisely the issue of cultural canon, the dominant areas of which and the proportion of these to one another may be subject to discussion, but we feel adhering to some kind of canon or other is essential. In our view, this is an issue relevant to our society as a whole, and absolutely not just the internal affairs of a profession, namely teachers. Why? Because in the absence of reaching such an agreement reflecting consensus, the chances of inter-generation dialogue could be severely limited (if possible at all). It is obvious that this is a delicate and dynamic balancing act, in which the proportion of continuity and discontinuity may be open to negotiation

and debate. However, we are of the opinion that social anomy would ensue should discontinuity clearly prevail. Assessing the situation from yet another viewpoint, that of values and the crisis and relativity of values, we may also identify markedly good opportunities in the media-rich learning environment. Think of the surge in demand (apparent both in bookstores and libraries) for works of fiction (even classical literature!) adapted to film. This shows that the fate of products of high culture is not as hopeless as we might occasionally think, even in today's environment.

A well-known saying born in student circles states 'classical is boring'. Conflicting this opinion with the question of 'what schools should teach' brings us fundamentally closer to the problem of democracy, when observed from an education policy and institutional perspective. Are schools tasked with (also) offering pupils, some (most?) of whom would otherwise not encounter these, cultural products (classics and works belonging to high culture) or only things that have an almost immediate practical benefit and value? This polarised question is obviously not fortunate. Because it is our view that any school taking its responsibility to the public seriously has precisely the task of attempting to expose pupils, who would otherwise not encounter them (for example due to circumstances at home), to works that represent enduring values (classics!). It is true: the world of classics is far removed from the world of pupils in time, space and customs. It is therefore understandable if they consider these difficult and 'boring antiques' unintelligible and alien. But classical works are classics because they have something valid to say to later ages and people as well. It is precisely teachers' ingenuity, creativity, professional and methodological culture that is required to unravel and convey these in an appealing way. Hopefully it will not reflect badly upon us if we state that this task, truly challenging our culture of pedagogy, could also have a beneficial effect on mental health: activating our creative reserves and decelerating the process of burn-out, 'mental sclerosis'. (Maybe it has been too long since we were secondary school teachers and we are overly naive. This could be the case; however, and we have common social experience indicating so, the fact is that employing a visual toolset carries the chance of success in this regard.

Nonetheless, 'students today are radically different from past ages' is oft heard from teachers employed in public educational institutions, which indicates that apparently the metaphor in the title is in no way a poetic exaggeration. But think about this: did earlier generations, following in each others' footsteps, not differ from one another? Of course they did. But to a much lesser degree than for instance youth in the 60s and the 90s. Going further back in time, the differences become even more apparent (compare school leaving photographs from the 30s or the 60s with those of today). In addition to these visible differences there is also a much more fundamental change. There was no question for the generation in the first third of the last century (the great-grandparents of today's generation) that the final leaving certificate simultaneously signalled entrance to the world of adults: getting a job, looking for employment, starting to 'settle down', having an independent life and thinking about forming a family. In our experience this habit was generally accepted in our

generation as well (the grandparents of today's generation). Today's habits are completely different. One reason for this could be that large numbers are pursuing longer studies, as a result of which the time of dependency is extended, independent existence is started at a later stage, they are reluctant to grow up, and live together with parents for as long as possible.

4. Gains and prices: an attempt at a balance

In the following we will attempt to draw up a balance for this new learning environment and to enumerate its perceived advantages and disadvantages, the gains partly affecting the internal world (perception, attitudes, types of reaction) of 'consumers' (pupils and students), and the cultural canon proposed by institutional teaching and education, as well as changes to the roles of teachers and functions of the institution in relation to it. More concisely: what are the essential gains of the aforementioned developments on teaching and learning in general; do the developments come with an individual, personal price; and if so, how can it be defined?

Based on both our teaching experience and that of our colleagues and publications, it is apparent that such gains and prices can be registered and determined. However, without adequate distance in time, it would be too early to attempt to clearly label these as enrichment or impoverishment based on a value judgement. (We worry that this would also be hard to do because, as is the case with most things, these are not clear issues. Opinions about them usually go 'on one hand . . . on the other hand'.)

4.1. Historical/cultural context – what for?

I read the following deeply true statement somewhere in the writings of Gyula Illyés (or was it in an interview with him?): 'work impairs'. Calloused palms and bent backs in the former era of work, locomotive and spinal ailments, cardiovascular diseases and sight impairments in today's work environment – convincing testimony to the validity of the claim. If so, in what way do basic traits of the modern (postmodern?) age, such as shortening and acceleration, especially characteristic of digital living, leave their marks on contemporary man, students and children?

Teachers complain that nowadays it is nearly impossible to get students to read longer prose or books. Instead they favour their abridged versions ('One hundred famous novels'), or even more so their adaptations to television. Experience shows that after watching the televised version their interest and willingness is sparked to read the original work. In lieu of going to the theatre they prefer video and DVD.

When gearing up for exams at the third level of education, they omit notes if possible, and instead rely on a list of exam questions that have been elaborated in the briefest possible manner, with individual topics preferably not exceeding a

page. Moreover, if a particular institution publishes these elaborated exam questions on the website of the department, students will mostly learn only these during preparation (BUDA 2003b).

The need for shortening and brevity can thus truly be determined, as clearly confirmed by the experience of teachers. The question is whether these come at a price, and if so, what kind? To refer to the quote used in the introduction: 'how does work impair' in a media-rich environment?

One clear and also easily experienced way is the degeneration of the need and affinity for the historical aspect of phenomena, which can consequently be called the deprivation of knowledge of context. (As much as we strive to perceive things in their controversial complexities, we would find it difficult to interpret this development as enrichment.) It seems that in-depth and intensive knowledge has a lesser value than perhaps superficial but instantly usable information, which are spewed out of internet databases with confusing abundance.

And has the speed of perception of viewers increased as a result of the frighteningly quickly alternating, flashing video clips? We can confirm this (as research in psychology has come up with such results). Something that is not only enjoyable for, but can also be appropriately 'decoded' by the (young) generations 'socialised' on such experiences may seem as nonsensical and incomprehensible hodgepodge to people belonging to older generations (or those not versed in the world of video clips). We also have experiences regarding the 'hidden curriculum' effects of the ever-increasing speed of experience dosage: not only do students and pupils find content mediated within the institutional framework to be boring in general, but also feel the rate of transfer is too slow. This shows that as a result of their ability to digest information faster, their needs and expectations concerning the speed of transfer have already been transformed by the media-rich environment.

4.2. Information vs. knowledge

How recent is the change in taste, manifested in always guzzling new, fresh and attractively colourful programs? (We think that although the tools of mass media have changed radically and expanded, during the first third of the 20th century, with the advent of radio,⁶ as reported in the writings of Kosztolányi and Karinthy, readers snatched fresh copies of the dailies *Est* or *Friss Újság* from the hands of newsboys with the same hunger for news and curiosity for novelty as we surf between channels nowadays.) Even if taste itself, the eagerness for news, did not change

⁶ The communication and mass effect of 20th century European dictatorships was also intertwined with the advent of a modern set of tools. Neither Mussolini nor Hitler or Stalin could have gripped their audiences so effectively, had two early but powerful new tools of mass media, radio and film, not been at their disposal. We could equally list politicians of our times who blog (Obama, Sarkozy), and who are just as adept at exploiting the opportunities offered by the media, but fortunately stay within a democratic framework.

fundamentally, new psychic elements have also been noted due to the use of digital media.

Therefore, one can access information easily, by ‘activating a few functions’ (pressing some buttons). New things are but a click away. We are showered in information and knowledge and no effort is required to obtain these. The experience of effort, the taste of tiring but satisfactory performance is mostly missing amidst these conditions.

But can knowledge be also come by in this way? This can prove misleading, because – accepting the premise of constructivism, namely that knowledge is not received, but personally built through a series of efforts – we might fall victim to quick and easy techniques, as a result of the misconception that information equals internalised knowledge. However, the issue is more complicated than this. Only a part of the effect originates in technical qualities and opportunities. The other part is determined by the quality of subject-dependent interaction between teacher and pupil, amidst institutional teaching and education. Should a teacher or lecturer settle for the student simply reading highlighted sentences aloud – as part of, let’s say, a short presentation – either from a textbook or notes or some material downloaded from the internet, the circle will be complete: teacher and pupil, lecturer and student become partners in employing the easiest path possible, while individual, added value (reflexions: questions, thoughts, observations, points of view etc.) as specific educational potential remains unexplored. We feel teachers have a greater, more decisive share of responsibility in all this as the ‘nobility of effort’ can only be demonstrated to pupils and students through consistently set, significant expectations.

Of course, we should not be naïve. We have heard secondary school teachers complain on more than one occasion that nowadays it is something of a miracle if a student can be enticed to do a small presentation, i.e. to read an appointed text aloud.

4.3. Impersonality

Some are of the opinion that gathering information and learning in cyberspace are both asocial and antisocial (SHORT & CHRISTIE 1976). They reason it is asocial because the technical limitations of the electronic medium compromise the quality of communication; it lacks many characteristics of a direct, personal communication environment (facial expressions, gestures, eye contact etc).⁷

And it can be considered antisocial because the time spent on the internet (‘on-line’) comes at an expense of traditional (‘off-line’) time spent on direct, interpersonal relations. As with so many things, habits and taste can be a determining factor here as well. The older generation that grew up prior to the internet era supposedly prefers and is accustomed to direct dialogue, which is probably also closer to its

⁷ Although chatting over Skype using a camera may contradict this. Question: does it match the opportunities offered by a direct, face-to-face environment?

tastes. For young people, members of the ‘net generation’, ‘chat’ and ‘skype’ are obviously full-value forms of communication. It is true, however, that keeping a coherent dialogue going in personal communication requires a much smaller effort than in the virtual world.

4.4. Media world – values – models

A good half century ago there was a clear distinction between the world of children and adults. Whenever adults considered a topic unsuitable for the ears of children, especially in a middle class environment, one could often hear ‘nicht vor dem Kind’. (In my experience, a much later realisation, this was the case even in environments where the people had no serious command of the German language whatsoever.)

Today, we have authors (BUCKINGHAM 2000; TAPSCOTT 1998; POSTMAN 1994) writing that the environment in which children grow up, learn and play increasingly overlaps with the environment in which adults work, communicate and relax. We could say that the world of the internet, television and mobile phones inevitably becomes a sort of organic learning environment. If we use them, and not the other way round, everything is fine. It is again the responsibility, opportunity and task of the intelligentsia (teachers and lecturers) to draw the attention of pupils to the wise use and possible dangers of these sources.

What we can (and must) do as teachers in this regard can be summarised as follows:

- Developing awareness, i.e. that pupils are free to choose whether to go for something valuable or rather mediocre from the rich choice of media. Make them understand that if they go for the mediocre choice nobody forced them to do so; it was of their own free will and decision that they opted for something ‘lame’.
- It is equally important to develop a critical approach. To make them realise that whatever public affairs programming figures say in the media does not need to be treated like gospel.

It is natural for public figures (politicians) to also have emotions, bias and interests (many of which they often try to conceal); it is therefore advisable to educate viewers/‘consumers’ not to take whatever they hear there for granted, and not to suspend or turn off their clear judgement. On the contrary: to be alert.

- It is also important to ‘teach’ students that a television set can also be turned off (one does not ‘have to’ watch the box). Trying to bring them to the realisation that they will miss nothing if they refrain from consuming media from time to time. This is in no way easy, as there is a very strong suggestion, a ‘hidden effect of the curriculum’, that one should feel shame at not being up to date regarding the ‘fashionable’ telly series. Our information indicates it is a

favoured and widespread custom among schoolchildren to discuss the minutiae of trendy and stylish things seen in the media.

It is clear that developing 'judicium', the capacity of judgement, is a long and arduous process. But is it imaginable that the development of this fundamental psychic feature should not be a key (subject specific) task in pedagogy for all subjects and areas of culture?

I even seem to hear the rising objection: the adjectives 'mediocre' and 'valuable' reflect a value judgement. It is so, no point in hiding the fact. We realise this is a complex issue, as it is common knowledge that 'de gustibus non est disputandum'. We believe that even knowing and accepting all this, schools should not give up their important role in assisting young people in information-gathering and orientation regarding style and taste (even in a world with pluralist values.)

We need to accept the fact: 'nicht vor dem Kind' is passé. We might even approve of secondary school children and young adults growing up and socialising in a social environment where the most important reference point is a world governed by the prestige consumption of stars and discotheques created by mass media (JANCSÁK 2007). We are unsure of the scope and social environment this sharp but research-based statement holds true for, although we suspect it is valid for quite a broad field.

Nevertheless, let us pause for a moment to expound the problem of these developments from a social history point of view. What do we feel it could be about in this case? The phenomenon David RIESMAN (1950), in his work titled *The Lonely Crowd*, characterised with an opposing pair of concepts, 'inner-directed' vs. 'other-directed people'. He linked this historical process to the weakening of the religious worldview and to the parallel, but of course opposite change with the advances made by secularisation, and assumed that the closer one got to the present within history the more dominant other-direction became. If we accept that the 'trendy' values and examples conveyed by the media world serve as a model for the masses, we are hard-pressed to shake off a feeling of disquiet. At the same time, a result also published in the aforementioned study provides a particular counterpoint to this assumption, namely that despite being regular consumers of audiovisual media programmes, university students consider the information and content available via commercial television and radio channels and the internet to be the least reliable.

Obsession, a seemingly massive search for identity among teenagers, mostly focused on the stars manufactured by mass media, usually proves to be but a transient state. This only indicates an issue or problem if it does not disappear by the end of teenage years.

However, one may hardly sympathise with, approve of and settle for the fact that 'thanks' to the stories and examples served up by the media, young teens (13–14-year-olds) in many cases no longer relate to one another, boys to girls and vice versa, as adolescents, but experiment with adult-like relationship models.

4.5. Digital ‘folklore’

We used to learn in schools: folk songs are born ‘on the lips of common folk’ and their author is unknown, with generations passing them on to one another, during which they may change and be refined. It is mentioned less often that people of former (archaic) ages had to come up with something to entertain themselves (if it was fun they were after), as no entertainment industry existed at the time. The ‘motivation’ to craft items carved from wood (staves, whistles, flutes, whips), marvelled at in museums today, came from a desire to do away with monotony and boredom.

And what do we see today? (Mostly, but not exclusively) young people jump headlong, almost furiously, in the widespread game of recording images of anything and everything with mobile phones that might be considered for posterity. To do so, no special skills in photography are required; elaborateness is not looked upon as something especially valuable. The exhilaration of capturing and being able to capture the moment can be felt on the authors of these images. We simply point the phone at the object of interest, shoot, and presto, have the image captured. This practice is so widespread and general that we could even talk about the birth of a new (digital) form of folklore. What used to be lustful whim or artistic ambition is today the entertainment of masses. Of course the product cannot be compared to an artistic photograph; however, the point lies elsewhere, the playful and intoxicating ability to (easily) record the view and the moment.

Is it not the same stem from whence the creators of ‘remixes’, driven by a need to recreate worlds through play and playfulness, sprout? Laymen who remix films by taking image and sound from different movies, accompanying scenes from *Star Wars* with the dialogue of *The Rascal of the Railroad Shack* (*Indul a bakterház*) for instance.⁸ Nothing else but taking pleasure in the game, time and a good quality camcorder are needed to do so.

Question: does this suggest some kind of new need or demand, a new type of psychic feature in the background? We feel such is the case, and in our view this is the sense of relativisation, interchangeability and arbitrary matching of things. The occurrence of this sensation is again the result of the aforementioned postmodern ‘fluid’ age. The opportunities served up by the media-rich environment have provided ‘homo ludens’ with another exciting toy.

4.6. ‘Homo informaticus’

In addition to ‘a new breed in a new soil’, a new race is also becoming apparent in our schools to an even greater, more comprehensive degree. With a metaphor borrowed from László MÉRŐ, we are witnessing the birth of ‘homo informaticus’.⁹

⁸ Fans of the comedy show *Whose Line Is It Anyway?* are also familiar with a version of this, when the actors on stage need to improvise the dialogue for a film clip that has been muted.

⁹ Apart from borrowing the metaphor, the text also follows the train of thought described in the various works of MÉRŐ (1990, 1998).

Will the age of ‘homo sapiens’ be followed by the age of ‘homo informaticus’? Perhaps.

In light of our current knowledge, one thing we know about changes of era in civilisation is that memory was clearly the most important psychic feature in the process of passing on traditions and culture in the era based on oral tradition. Cognitive sciences tell us that recollection itself is actually reconstruction, meaning that facts recalled by memory for transfer have themselves changed, the same way memory itself alters through recollection. The safeguard for stability in passing on facts arrived when writing was invented (e.g. copying codices). But think about the dramatic fear that might have gripped copiers of manuscripts after printing, i.e. a method of reproduction was invented, as a result of which the consistency of the facts passed on was ensured on one hand, on the other hand masses could peruse the same facts (if you like: information). You do not need a vivid imagination to picture the ‘doomsday’ feelings spreading amongst people of that time: social life and maybe even man as a social being was seen vanishing and ending, once everybody resorted to reading quietly in solitude.

In today’s world, the age of the world wide web and the internet, we may hear similar qualms and fears: those availing of the aforementioned opportunities and ‘cultural assets’ lock themselves in a virtual world, with their human relationships suffering and dwindling in the world outside their virtual reality.

In contrast, if the diagnosis of László Mérő is to be believed, traditions are starting to appear among consumers of pop culture and video game fanatics for instance, which point towards the creation and formation of some kind of (virtual) community space, an ‘agora’.

Think of the everyday, general experience: how basic, almost essential communication by mobile phone seems, especially (but not only!) among young people (and how dispirited and impotent we can feel, as if ‘with broken wings’, should we forget our mobile at home!). Once we accept this as valid experience, we may lean towards a new breed of man truly being born. ‘Homo sapiens’ lives on Earth, while this new breed of man colonises cyberspace (‘My homepage is my castle’?).

Earlier and current breeds of man became extinct due to an inability to satisfy their biological needs. Is it fathomable that in addition to biological needs, individuals belonging to this new breed of man will be able to perish due to ‘information starvation’ as well in the not-so-remote future?

5. Summary

Is the internet a boon or bane? The question is obviously wrong as it cannot be answered with a clear yes or no. Nevertheless, we may safely say that a media-rich learning environment is a reality that one may choose to ignore or draw upon (with prudent wisdom).

The gains made by visuality lead to a straightforward conclusion: the paradigm

based on sight is in a winning position. The new possibilities offered by technology have led to a fundamental transformation in the structure of communication that is taking place in front of our eyes. This could all grow into the 'agora' of more widespread social dialogue, a democratic force shaping society, and (in)forming the public; however, it also carries the risks of massive manipulation of masses.

Which of these futures turns into a reality depends on the level of development and the health and maturity of the democracy in the particular society. These events clearly foreshadow a transformation and restructuring of the teacher-student roles.

In general, students and youth, the 'new breed', are more adept at the techniques of using the new set of tools than their teachers, which casts a special light on the principle of 'docendo discimus'. I wish teachers, the 'teaching caste' (we!) had sufficient reason, wisdom and servitude to be open, i.e. to be ready and capable of learning from our pupils in this regard.

On the other hand, nothing and nobody will release teachers from the responsibility and task of fostering psychic content (skills), such as independent thought, critical judgement, the need and ability of separating valuable from worthless, in their students with all means at their disposal.

In professional literature one might also encounter a voice glorifying the media-rich world as a sort of 'salvation' ('the digital world completely takes over the role of teachers'), and a voice reflecting much more reason, of the view that teachers and the interpersonal relationships they provide for students will never be replaced by machines. (We profess: the latter view is closer to us).

One thing seems for certain: to loosely quote the notion of Kristóf Nyíri, visual language will not eliminate, but rather complement verbal language, with the clear formula for the future being mixed media communication. And this future appears to have arrived.

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