

## Metamotivational synergy: could multimedia learning (ML) influence art and design education?

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### ABSTRACT

Maslow (1967) first posited questions on how Multimedia could assist or support education and learning. Studies by Apter (1984) and Meyer (2001) and later proponents on the advantages of multimedia based learning (ML), as opposed to conventional learning, demonstrate how a variety of media could indeed enhance perception and learning abilities. We take precepts from such cognitive principles classically identified by Meyer (Meyer, 2001), in order to suggest that similar precepts on audio-visual (ML) approach may also help students and practitioners of art and design, as much as other disciplines. What this helps in pinpointing in very concrete terms is how creative decisions could be possibly influenced by audio-visual ambiences, in both immersive and instructional formats. Of the basic precepts laid out by Mayer and his followers, for any kind of artistic endeavour, is cognitive synergy, which may be a key factor in artistic practice. Synergy along with induction of metamotivational feedback could assist artists to engage in targeted semantic performances. If this were true artists could also be more prone to learning skills and feeling focally driven by simple and coherent media interventions. Perhaps multimedia instructions can awaken the budding artist and designer to identify a creative flow, and to feel inspired by means of metamotivational feedback as Apter (1984) suggested much before ML became an alternative learning module. We shall classify media content in various social media and art-ecological niches, as underlined in the literature. We shall conduct an exhaustive survey on all categories relevant to an audio-visual ML approach. A categorical classification of learning prototypes based on cognitive theories of ML could help us in development of sound practice environments for art and design.

**Keywords:** Multimedia education, Metamotivation, Synergy, Wow

## Introduction

We argue that multimedia contains stimuli that allows learners engaging in such media to perform better in task appraisals. The term multimedia (henceforth ML) here refers to the cluster of audio-visual media widely available to people, offering them media options for personal involvement and communication. In other words ML may be seen a resource for our multitasking environments with all kinds of Apps, Youtube, streaming video, social media and learning regimens all interlaced and happening in real time.

As such, as a landscape of alternative media scenarios, this extended and connected environment of ML helps in creating media ecologies of (a) exposure as well as (b) expression for its participants. Media informs and affects users, providing means of engagement without actual physical contact or presence. But more importantly multimedia ecologies are semiotically fitted to evoke interest, with emotions that attract and motivate users in a context of global connectivity. The idea therefore that multimedia offers ‘interest structures’ (Silva 2005; 2006) makes it particularly suited to the needs of education in contemporary scenarios. We recommend an actor mediated multimedia ecology that can involve participants in collective learning and innovative expression, especially in contexts which require freely evolving imaginative responses, as would be evident in construction of memes, or self-expression achieved with visual selfies as in Instagram or Snapchat formats.

Self-expressing creative posts in social media help in raising self-esteem through disengagement, which may be exemplified in role-playing narratives, for example. Additionally, self-projection in social media provides another instance of expression based on external social feedback. ML also offers escape through a semiotics of diversion and helps reduce cognitive overload or stress, both in knowledge acquisition retinues and in creatively engaging social contexts.

## Metamotivational ML

The second advantage of ML ecologies lies in their ability to develop ‘metamotivational’ assemblies. Metamotivational strategies emerge from the subject’s involvement with multimedia and other interactive programs on online platforms (like social media) (Stenros 2010), and sometimes other offline platforms (like videogames or musical performances) (Brown 2012). Thus, ‘metamotivational’ strategies, first proposed as a psychological reality by Maslow (1967), refers to the subject’s interlocking dialogue with media narratives in such a manner that it generates psychological mobility, through *synergy* achieved as a result of interactions between the symbols and character of action of respondents. Theoretically, metamotivational transition is a great pusher for self-actualization of most students and apprentices, and also possibly for adversely affected subjects. We may take precepts from cognitive functions identified by Mayer (2001), Stenros (2012), in order to suggest that audio-visual ML approach with media may also help students of art and design, as much as other disciplines (Crozier and Chapman 2008; Giloi and du Toit 2013). What this emphasizes is how creative decisions could be possibly influenced by audio-visual ambiances, that create metamotivational impulses for students in both immersive and instructional formats. The act of initiation in the arts, and the consequent onset of projects in an apprentice marks the start of a diegetic inspiration, from within the depths of the task, to create moments of feedback and moments signalling new reflections and innovations, and adaptation for young artists to whom the virtual world becomes a refuge and a leitmotif.

## Synergy

Again, another important and basic precept laid out by Apter (1982) Meyer (2001), Boekaerts (1995), Miele and Scholer (2018) for any kind of metamotivational process is cognitive 'synergy', which may be a key factor in artistic practice involving ML. Since all new media implies presence of a varied range of perceptual involvement a corresponding wide range of impulses would have to be accommodated and negotiated on the mental plane. Synergy of such competing inputs gives rise to metamotivational feedback for artists who are assigned definitive projects since this is when their feelings on the progress of their own work is conditioned by their notion of an end or teleological finality regarding the task at hand (Apter 1994; Sweller, Van Merriënboer, & Paas, 1998). For example, an artist's imaginative resources may be touched by signals deriving from unexpected contexts and situations, with their varying degree of interest and which also somehow proves to be selectively used since not all kinds of media are interesting or 'valuable' for the artist. Blending of information is essential for an artist - and this is often a result of inspiration in unaccounted or otherwise very specific and self-referential sources. If this were true artists would be naturally expected to have strong metacognitive appraisals of their targets, and therefore be led to feel more focussed in their preferences and utilization of resources that are relevant solely to their work. Hence metamotivational awarenesses provide a strong filter for the immersive environment which would otherwise overwhelm and confuse creative artists. Perhaps ML inputs, more than other sources of inspiration, awaken the budding artist and designer to identify a creative flow, and therefore work on the basis of metamotivational feedback.

## Hypothesis

Here we propose a model of interest modularity; that is to say, that the search for a module of interests is feasible and that narratives, statistically speaking, are capable of entertaining turns of crises and resolution that are selectively identified or preferred by practicing artists. Interest modularity should be a basic cognitively visible cluster of events in a new media environment, some of whose components create special interest or points of entry for the artist. Many of the separately functioning assemblies of media may be made visible and reified as actualizing processes. But contemporary societies bound together by broadband connectivity and digital media have begun to carry the narratives of digitally advanced cultures beyond the divide and create a pattern of attractors with their audio visual aura.

The history of human depression reveals something of the pattern of obsessions and fears in human society (Meyer 2001; Stenros 2012). How has literature and poetry, or the arts symbolized fear - the basic fear of survival and the counterintuitive belief in the protecting agency.

The arts are informed in two broadly two differing traditions in the world of literature, and especially of works which manage to emerge as classics. Perhaps the most fundamental coping strategies for literary artists, for example, are provided by literature - the human ability of story-telling is closely interlaced to counterintuitive coping strategies with the most intriguing questions on life which are namely: death, the loss of loved ones - the necessity of resolve and action, even against the possibility of self-extinction or war and the cognitive threat to consciousness and survival.

An alleviating paradigm for deep stress social anxieties and instabilities, the loss of freedom from existing social relations and migrations, has been translated into the situations of virtually connected stratum of life. The human need to express oneself is part of the offset mechanism, the cathectic element of performances and its semiotics in the new world. Thus the evolution of the arts shall depend on how well the deeper and intense pressure of global life-schemes are resolved by expression in ML alternatives, as cross-media options, parallel to literary and narrative arts of a pre-industrial culture.

### Examples

In other words what we shall be primarily looking at is interest modularity, an essential function of which comes out of the research on interest motivation conducted by Silva but whose philosophical justification is more or less, one unequivocally derived out of Maslow's thesis of self-actualization.

This explains the rationale for research on the 'wow' element in music production. It is suggested that sonification's potential value, probably lies less in hard facts and more in how it may serve as a stimulant for curiosity. Indeed the process seems to have been examined in Maynett's (1982) 'audio aura' just as much. The wow effects created by music, or the riveting attractions of online video interactivity,, whose effects on learners have been studied by Courage and Colleagues (2015), shows how inspiring affective music joins with perception to produce more innovativeness.

This kind of manipulation of score suggests the feasibility of interest modularity. As Silva aptly demonstrates in his 2005 and 2006 papers, interest exists for a certain phase of time just as the other preconditions for interest evocation are adaptability, comprehension etc. , positions are necessary for affective feedback to work and metamotivational processes to emerge at all. Similarly Brown (2012) studies this same perception in his experiments on computerized videogames and its effects on self-motivated learning schemes.

### Methodology

We shall classify media content in various social media and art-ecological niches, as underlined in the research (Mayer 2001; Stenros 2012). We shall conduct an exhaustive survey of categories relevant to an audio-visual ML approach. A categorical classification of learning prototypes based on cognitive theories of ML could help us in development of sound practice environments for art and design.

The other question is to describe a metamotivational ML, although it is true that this is not easy to describe. By its very nature ML functions as a collection of platforms in various media; this includes mostly social media, online video resources and streaming, visual simulations and real time performances and actor newtworking, among others. While drawing, doodling or working on a Photoshop illustration project an aspiring participant may simultaneously be using social media, or referring to a video and developing the project and by connecting through search engines or texting, that is responding to a media and also at the same time confidently working as part of a creative flow. Uninhibited creative flow includes ML signals during a specific trajectory, yet the flow itself remains unbroken and punctuated in terms of a trajectory of moments with both peaks and dips in heightened or reduced attention. This waxing and waning of attention is determined by a *synergy* of elements.

Elsewhere speaking on the necessity of punctuated recess we tried to show that apprentices do record enhanced performance indices while engaging in diversional ML at recess hours. The inputs from ML creates what Silva calls “interest structures”. Educative inputs in the form of entertainment technologies constantly harp on these interest structures to attract players and could engage them in a continued narrative which contains its own turns of surprises and rewards.

### Experiment Proposal

Our model : Leave the synergy level to evolve out of maximum free play, in amodular expression through media, of counterinhibitive tendencies of expression, without disciplinary restrictions for phased learning experiences. Such amodular multimedia helps in the emergence of structures of interest through synergies which are atypical - as in case of teenage dependence on screen message systems and video . The cross-media potential for such engagement is enormous and hence we do not leave out story-telling extremes and fetish and is the only alternative for combating dysphoria in life as well as education and creativity above all else.

The computational paradigm for such efforts is already somewhat available in data analytics - its relationship to education has not been emphasized in the humane stops of the flute. Its importance cannot be over emphasized in this context, and its humanistic angle, having been underrated in behavioral research, never tends to produce any tangible effects on either education or self-esteem. Analytics programs cannot be placed in the hands of tutors or monitors, without damage being caused to the psyche of students. This misplacement of education analytics is getting prioritized in education psycho-sociology in such theses as in Siemens and Long’s 2011 study *Penetrating the Fog: Analytics in Learning and Education* where they say for example that “Learning analytics can penetrate the fog of uncertainty around how to allocate resources, develop competitive advantages, and most important, improve the quality and value of the learning experience.” Analytics allocation is not discipline based, but is emotive based and needs to provide opportunities as students progress in their education, as platforms embedded in the learning regime. It does not necessarily stand to benefit or assist in education -it stands to affect student’s choices for deviation from expected path and expected alternatives.

### Conclusion

Hence we conclude briefly by saying that a qualitative data analytical program may actually enhance learning regimens. Students get to view their option, and engage in limited time self-regulated diversion for positive re-inforcement of mood states. Courage calls this effective multi-tasking in education scenarios (Courage et al 2011). This is also our practical experience in the field of everyday life, especially for more matured adults who develop a sufficient amount of self-regulatory restraint to dynamically balance diversion with concentration, recess with task appraisal, and ML with active learning events. This practical experience could well be incorporated into data analytical modules for actually assisting a learner, in the context of computerized classrooms, to find and feel a way through metamotivational semiotics for better task appraisals and closure. Thus there can be two alternatives for final consideration. The more conventional approach would be to use data and big data resources to improve complex learning processes: this consists of actual upgrade of alternatives for better understanding and reference. Another way of looking at ML we suggest, is through diversional engagement: our method includes a recommendation for an

analytics of interest choices for the learner. It is really a more emotive (i.e. interest based) module involving de-regulation of cognitive overload and promotion of synergy between elements of media for imaginative reproduction. Leave the points of interests out in the open with an analytics of the same or similar systems in the creative trajectory.

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