

Essay about Learning, Teaching and the Paradigm of Innovation

Abstract

In the digital age everything, every aspect of anyone's life becomes increasingly subjected to digital technology, algorithms and the unforgiving truth of logic. But aligning to the effectiveness of the machines requires an enormous amount of system conformity.

Reflecting the credo of the artificial intelligence: "nothing done by human hand and/or brain can not be done better by/or with software" we may ask about the role of human creativity, the human ability to create art pieces, which are exceeding our expectation by their sheer, speechless existence. How should we understand the fancy, never seen before, never imagined virtualities, delivered by digital movies, computer animation or VR applications, while knowing above their origins inside of the digital domain? How can learning and teaching within the art and design related disciplines be conducted and justified - in front of the backdrop showing technology outclassing any human effort?

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1. Analysis

To learn, means to establish sustainable changes in one's own mind, skill-set and knowledge-base by undertaking individual efforts - just as the Latin term "Studium" suggests. Teaching in contrast means to help others in doing so. Hence learning can only be done from a first person perspective - teaching alternates between first person convictions, deep rooted in individual experiences and third person knowledge, constituted from accumulated and formalized findings. But, finally teaching aims back to the individual mind of the student.

Considering the term innovation delivers, on the contrary, less concise assertions. In the first instance we are facing connotations mostly from the technical, industrial domain. By the introduction of novel machinery and manufacturing-methods in the mechanical age, succeeded by the industrial era of mass production and subsequently due to the world wide digital revolution, a "real-time" society has been established, where innovation became paradigmatic. But this development has a strong virtual aspect. Has innovation in the pre-industrial age been mostly motivated by urgent needs, emerging from the shortage of particular goods or inefficiencies in a specific sector, it nowadays shows a totally different character. Today innovation reflects primarily in increasingly shortened product-cycles, in particular of digital technology, in the increment of bandwidth and extent of the existing networks (Big Data) and not least in buzzword-centered marketing strategies.

Innovation today appears to be an on-going process, omitting nothing and pervading all aspects of everyone's life. But - is this still innovation in the original meaning? If innovation is everywhere - how can it deliver something particularly new? If Innovation is ever-present - how can human beings deal with this constant pressure - especially in the context of learning and teaching?

People in contemporary societies are running out of time, or at least they feel so. Despite the promises made and kept by innovative technology to make life easier, better and more convenient, by providing faster transportation and communication, by allowing instant access to any desirable goods and information online, by establishing most efficient organization, subsequently by providing increasing numbers of virtual opportunities; we should become relieved of so many stressful tasks, which have drained us in the ages before. But our everyday reality is apparently something different. We are constantly engaged with acceleration, with browsing mobile messengers, with elevator pitches, coffee to go, speed dating, power napping, priority transfers and so on. There is, or there seems to be no time, to do be mindful, to develop an inner passion for a certain task, to spend time learning something in its full extent. We are constantly demanded to increase our performance, efficiency, accessibility, social networking in order to stay innovative within a competitive world under the paradigm of an eternal economic growth.

How did we get in this situation and is this a problem of innovation and if yes, how does this relates to learning and teaching? It is indisputable that technical innovation is contributing enormously to our welfare today. Due to innovation e.g. in medical imaging, computer aided production (3D printing), information distribution, worldwide transportation, the Internet, mobile communication devices and so on - our opportunities in terms of individual self fulfillment, traveling, business (crowd funding), learning, entertainment, online friendships ... have dramatically increased and there is no end in sight. We believe that we have adapted to this new freedom granted by the digital revolution and we are convinced of being the masters who are benefiting from digital devices and media services. But freedom comes always with the price, which is in this case: spending time on, and attention to, virtual events, being requested to make overhasty decisions on insufficient knowledge-bases, being supposed to (re)act in an adequate manner on any request delivered by the media systems. While the amount of those requests is continuously increasing it becomes more and more difficult to keep up with the systems demands and more serious, to develop a profound individual position accordantly. More over we can recognize a fading of discriminative strength between the overwhelming numbers of somehow redundant and resembling online opportunities.

Facing this kind of system-generated situation evokes three main types of reaction. Some of us are worrying about not keeping up to date, about getting disconnected, about being guilty of under-performing in regard to the paradigms of the contemporary media mainstream. Others tend to deny their individuality by adopting a Zeitgeist-Surfer attitude, committed to nothing in order to be able of seizing any promising opportunity and still others becoming idiosyncratic, centering on very particular trends, topics and behaviors. And to make things worse in regard to learning and teaching, by considering the human being as infinitely complex, these three types of responses do not necessarily need to be distributed to various individuals. It can also coexist in one person in various gradations.

2 Learning and Teaching Visual Art and Design

Relating the thoughts above to higher education in the field of Visual Art, Design and Communication (of which I'm a professional) gives reason to discuss this under varying aspect in order to achieve a valid intellectual position to start a solution oriented discussion from.

Visual Art and Design is never and has never been a matter of right or wrong, of amassing or arranging certain elements in a specific manner. Hence Visual Art and Design pieces gaining their appraisal to an overwhelming extend because of their sheer unconventionality, of their capacity to enrich the beholders (but also the creators) mind, of their

power to transform ideas to images and to change paradigms with ease, a pedagogy which commits itself only to logic and reason will fall way to short in order to cover the subject in a sufficient manner. Doing Visual Art and Design is an enterprise full of passion and excitement, is an eternal exploration of visual significance, an ongoing search for new perspectives and aspects. It is driven by an inner urge to sense sublime visual demands and to acquire continuously new skills and techniques in speechless (visual) expression to content them. And of course, it is rewarded by a priceless admiration by the audience. Therefore any teaching-methodology in the domain of Visual Art, Design and Communication must be oriented to the dialectic of mind and matter (body), of concept and percept, to the process of creation, expression and understanding, in short to: Creativity, Virtuosity and Intellectuality

2.1 Creativity

Creativity is commonly considered to be the human ability to accomplish something new, something unique, something that possesses a manifest appearance whereof connectivity in communication (LUHMAN, 1984) can be established and meaning can be derived from. Particularly because of the second condition, creativity can not be understood to be formal, methodical or conventional in any way; it neither can be proven nor evaluated in a systematic manner and subsequently, it can not be subject to methodical teaching.

Nevertheless, education in creative disciplines such as Visual Art and Design exist and delivers relevant results. Judgments about visual, non-verbal solutions can be made - not always easily, never covering the full scope of the subject, but sustainable enough to draw frequently constructive controversies from. Considering the creative process as a symbolic act, as what "symballein" means in its origin - the fusion of at least two varying entities, justifies the conviction that not a most precise definition of any entity but the manner of interconnecting them matters most in this regard. To accomplish „The New“, means roaming the spaces of perception, emotion and knowledge, means being hungry for new visions, means being enduring in exploration and experimenting, means denying any form of ideology, means shifting perspectives to adopt and reveal unconventional aspects and finally means providing appropriate visual expressions - sustainable enough to make one's first person convictions matter within an others (third person) reality. This is in the end also what teaching and learning in this domain is about. Any related academic effort must be made: to trigger perception, emotion and intelligence, to ignite curiosity, to acquire multiple sources of knowledge and experience, to find the best - not the easiest solution, to encourage trusting in ventures, and most importantly it must done in non hierarchical structures and in a atmosphere of equal opportunities and academic integrity.

2.2 Virtuosity in visual expression

As important qualifications in abstract creativity are, dealing with words, thoughts and ideas matter less in the field of Visual Art and Design. Thoughts and concepts need to become visible in order to gain inter-subjective relevance. Doing this on a professional level is everything else but arbitrarily. Since visual design exists, since typographers learned to utilize sublime mechanisms to dispatch the visual mind (BARTHES, 1964) by tweeting optical illusions to the edge (FRUTIGER, 1978), since the Bauhaus committed its programs to extensive training in creative handcrafting and artistic expression to build a strong foundation, where virtuosity can grow on and where extraordinary artworks eventually emerge from, since digital technology is relieving us from anything materialistic, leaving only the domain of visual significance and the

logic of pictorial perfection to work on ... - professionalism in visual mind and expression matters most, in order to assert oneself within a globalized art and design community.

But, learning and constant practicing a broad variety of visual techniques is not a self sufficient purpose, just aimed to satisfy involuntary visual demands or to ensure inter-subjective communication. It contributes significantly to the development of visual thinking and visual problem solving - and therefore it becomes a major (nonlinguistic) source of the creative process mentioned above. Providing an education, which centers to cultivate the ability of visual expression into virtuosity means to consider the embodied mind (LAKOFF - JOHNSON, 1999) and to understand artistic activities as sensomotoric interactions where mind and body are mutually engaged with in order to achieve extraordinarily results - regardless of using a pencil, a chisel or a computer. Understanding this leads to the discernment that the acquisition of Art and Design related skills and techniques is largely a matter of training body and perception. Doing this extensively, on varying occasions and interlocking levels, doing this continually helps to establish a subconscious, coherent flow - necessary to convert speechless ideas, moods and certainties into body related movements, which are finally drawing the line between the average, every day media sampling and speechless perfection (BOEHM, 1974) of outstanding Visual Art and Design.

2.3 Intellectuality

As the focus of the two paragraphs above aim more towards the core of the creative domain, towards the artistic creation and production process, the third goes onto the theoretical reflections in regard to production, perception and contemplation within this field.

Since we can easily show the insufficiencies of the traditional theoretical approaches (semiotic, anthropological, phenomenological...) to the "Visual", the idea of the picture as a procedural event appears to be more compelling. Only a movement, body retaliated process of interconnecting various elements (often not even entities) situated in the picture-space and even more in time based media is able to establish channels where the non-verbal appeal to the mind of the beholder can become effective. This explains the repetitively short-falling of language and rhetorics centered theories (committed to entities by naming and counting them) to the nameless continuity of visual phenomena. This in consequence limits any formal approach (e.g. the application of objective criteria) in a related education - but, this does not mean to drown in arbitrariness at all. Within the professional creative visual domain, the use of nonverbal expressions in regard to e.g. color schemes, pictorial compositions, looks, layouts, or the anticipation of movement is an integral and quite natural element. But this nonverbal understanding is indeed largely limited to the peers who are engaged in the visual creative process.

On the other hand, visual artworks are made for an audience, who share much more common traditions in perception, interaction and understanding. Here the gap between the non-verbal perfection and the conventional literal mind, trained to think in formal pattern, becomes apparent as the driving force, fueling the demand for both: visual expression but also for intellectual reflections (commonly made in language). In the contemporary age, particularly the second fraction of this dialectic should not left be open to the traditional, mostly historical approaches to the visual arts. Individuals who are actual hands-on practitioners in visual communication are used to very specific non-verbal methods, to take speechless intellectual risks and are used to go to the very edge in order to find the best possible pictorial solution, which finally matters. Doing this regularly leads to an accumulation of embodied but also intellectual knowledge - necessary to achieve extraordinary levels in art and design production -

but also represents a vast source, where theoretical contemplations about Visual Art and Design can be built on and where new interpretations, apart from the traditional, mostly representation-centered approaches, can become relevant.

Again, education in Visual Art, Design and Time-Based Media must be largely practically oriented in order to ensure the development of virtuosity in artistic expression, which is unconditionally required for profound judgments on sublime sensations and to achieve artworks, that make the audience consider them as of a certain quality, as extraordinary, or just as breath-taking. Theoretical reflections in this context are not meant to be self-sufficient, substituting other disciplines but to interlink and exploit barely explored aspects of the visual, embodied mind. By focusing on the relation between vision and locomotion while producing and beholding art and design pieces, by surveying the interdependencies between conception and perception, by considering pre- and subconscious effects in visual perception (SEKI, 1999; FREY, 2004) and relating them to Roland Barthes's idea of sublime dispatching - we can describe just a few aspects where body-related considerations of visual Art and Design can contribute to the theoretical scientific progress.

3 Synthesis and Curriculum Design

After the analysis of the field and after the deliberations about the aim and the core values of higher education in the domain of Visual Art, Design and Communication, next we need to relate both topics each other in order to derive a sufficient standpoint from.

On one hand it becomes clear that innovation in learning and teaching in this domain and committed to the values mentioned above is not about holding an I- Pad in hand during class time (In the contemporary age it is implicit to be connected with the knowledge of the world). But it is about to consider the variety of experiences and strategies the students have developed while interacting with the unlimited options of our infinite heterogeneous world. It is about to define a common sense in regard to visual qualities. It is about to encourage students to take efforts to the max-extend in order to achieve "The Creative Virtuosos New". It is about making the students gradually increase their skill-sets and respective confidence in their own abilities. And it must be clear that all of this does not aim to increase speed or numbers or efficiency, it aims only but rigorously to intensity, towards the moment of sublime surprise and of visual evidence. Lecturing in this manner means to teach by example, by demonstrating skill, intellectual sovereignty and professionalism about the subject matter.

Thinking about a methodical framework, which will serve this propose in a best possible manner, a reverse oriented tree structure (similar to a file-system) consisting of widely uniform nodes appears to be the most intelligent solution. It combines the freedom of a network with a sequential process leading to a clear defined goal. It offers a wide scope of possible access points (in respect to the variety of student backgrounds), it allows different approaches towards the final goal and it is flexible enough to be reoriented to the (difficult to predict) high dynamic processes within our contemporary society. The idea of creating uniform modules with clear defined in- and output requirements helps to keep the structure as clear as possible but this also contributes to show the relation between the efforts, oriented toward the specific project goal and the underlying principals of visual perception and creativity.

To give freshmen the reference they need to align their commitment too, very traditional hands on exercises, typically provided by freehand drawing, 2D and 3D design classes are still the mean of choice. This forces the students to concentrate on visual phenomena and to experience the relation between perception, idea and hands-on creation. It also trains

endurance, stubbornness and precision in eye hand coordination and it gives, done with passion, deep insights in the power of visual evidence.

Building up on this foundation the students need to understand the principals of visual communication as basically, underlying, pervading and widely independent from the technical and technological art production process. Combing traditional techniques with contemporary technology helps to understand this and to interweave varying competencies of the class members and between the students and instructor. This also provides the opportunity for students to find their preferred media and techniques. Due to an embedding of interlocking elements within the single project-modules an additional source of understanding can be unleashed. Since we know that repetition is a major factor in gaining virtuosity in visual expression and since we also know that students perceiving related exercises quite likely as draining and boring, we can organize projects assignments in a way that these particular tasks, which need to be trained, appear within the project sequence as natural as it will be in the industry.

While we need to keep in mind that the measurement for all activities within an Art and Design education is the success of the graduates. The students therefore need to be introduced to the very professional field, their studies are about to prepare them for. This can be done by inviting professionals for specific workshops, participating in online competitions, conducting group projects, internships and cooperation with related departments of other universities (best abroad). Integrating these elements into the curriculum will significantly contribute to the student skills- level, knowledge-base and not least it will help them to trust in their own abilities and creativity, which they will need to create outstanding graduation projects, serving as entrance tickets to a life of professional success.

4 Lecture Statement

After we have discussed the pre- and side conditions of learning and teaching Visual Art, Design and Communication under the paradigms of innovation and after considering of the core values, such education need to be committed to, the outlines of methodical structure have been drawn. The only thing left to do is: to describe the interconnection between the engaged parties to establish the most honest, most inspiring atmosphere where high intensity-learning, research and teaching can emerge from.

In the beginning of this attempt we need to plant a common understanding, that any activity of the students, the faculty and also the administration is aimed only but rigorously to the momentum in which knowledge and skill will be achieved (due to research, teaching and learning).

As explained above we want to consider Visual Art, Design and Communication as a domain, which is governed not only by a logical understanding of reason. This means a related curriculum cannot only be committed to the eternal truth of the book. In order to understand but also to utilize visual phenomena in a creative manner, we need to grasp, that the picture is not denying the logic of grammar and semiotics because it has no words - but it gains its particular perfection just because of wavering linguistics. Instant speechless understanding is an integral and powerful part of human communication and therefore a related pedagogy must be focused to this. So we are facing a particular challenge while teaching in this domain. Just to explain a certain task is never enough here. The teacher needs to earn her/his reputation by showing, by exemplifying - by teaching by example, by the very doing of visual magic. This gives her/ him subsequently a position from which she/he can further build an inspiring academic atmosphere evoking a common spirit, a common mindful understanding of visual

qualities and an appropriate artistic thinking. On this base she/he can become a partner of her/his students, urging, encouraging and challenging them in order to achieve outstanding results.

By aligning project modules to realistic situations in the praxis but also to contemporary theoretical discussions, a level of coherence in academic efforts can be achieved, which helps to constitute a whole person engagement, making students going beyond the ordinary classroom activities, but being still aimed to the very specific outcome. By discussing specific elements, learning outcomes, schedule and the manner of evaluation with the students on the beginning of each project, a collaborative atmosphere can be established, which helps the students to develop a maximal commitment - because they know what all of this is finally about. Inspiring the students means to show them access points to knowledge, which is not only a explicit part of the project but which is meant to allure them to discover the underlying principals. Conducting group projects, in which the varying strengths and talents of every class member can be activated and become particular contributions in order to achieve one common goal, helps students to understand and to respect varying opinions, to find solutions everyone can agree with and fosters their ability in teamwork. Using the means of evaluation wisely, means to understand them as a specific way to communicate with the students despite considering them as punishment and ultimate verdicts. Even a low grade can inspire a student as long she/he can comprehend it and as long a perspective of improvement can be shown. Being able to show how to deal best with difficult or just repetitive tasks helps students to understand this as an integral element of the specific project. In this way they also can discover their own passion and develop a commitment driven by the inner urge to achieve an independent artistic style of expression.

Letting the students grow, letting them to become independent while fueling and challenging them, giving them time to experiment but keeping the projects on schedule, being inspiring but also clear and fair in judgment - in short building an academic atmosphere in which the individuals can develop, can take intellectual and artistic risks - but which also aims to a common goal, is the challenge, a good teacher has to master even day. Taking the students seriously, being helpful but also challenging, being distinct and righteous, being a demanding but also a recognizing partner of the students and of course being professional about the subject matter - these are the key qualifications one must demonstrate to provide an education, which students need to have in order to be successful in the field and in their further life.

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