

Effects of digital images on table tennis players and coaches based on the thoughts of McLuhan and the PATT system

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Abstract: among the consequences of the digital revolution and its increasingly inexpensive high quality recording devices is an explosive increase in the number of photographs and videos produced. Table tennis has fully participated in this cultural trend; images, both still and moving, are produced seemingly always and everywhere the sport is found.

This paper examines the unique case of table tennis in its embracing of digital technology. It reveals how digital images have overwhelmed the written word in both sheer girth and frequency of use in communicating many matters of the sport, along with the powerful consequences that have resulted from it. For an effective presentation of the subject matter, this paper restricts its inquiry to the effects of photography and video recordings on the perspectives of players and coaches, with a particular emphasis on the consequences of the efforts of players and coaches to deepen their understanding of how to play the sport via the analysis of these media products.

To achieve this goal, this paper will draw on two systems of thought as its foundation. One is the groundbreaking insights of Marshall McLuhan who accurately recognized media not as passive vehicles in their interaction with people but as very active participants in their affects on people's consciousness, awareness, and perception, including many of the behaviors associated with these human dimensions. The other is the system of PATT (**P**inciples **A**pproach to **T**able **T**ennis) which takes a non-mechanistic systematic approach to table tennis. While McLuhan provides us with intellectual basis of media studies, PATT contributes the table tennis understandings for which these communication understandings are to be specifically applied.

Key words: images, media, McLuhan, PATT.

1. INTRODUCTION

A surging and disturbing trend has recently become a significant phenomenon in table tennis: the increasing reliance upon and overvaluation of using competitive match digital photographs and videos to understand the intricacies of the sport's play dynamics, particularly those media exposures of the top performers. Most attention in this regard is applied to the attempt to understand proper stroke techniques, for not a small amount of valid confidence is held that the best players have the best stroke techniques. Other visible matters, such as footwork techniques, are also available for analysis. It is eminently understandable for this to have occurred in table tennis, for it tracks exactly the broader-based trajectories of other subject domains for which this media may be similarly applied, as well as to whole societies that have access to these digital technologies. Nothing more confirms this than the well-worn expressions that are used to characterize this phenomenon. Flaunted phrases such as the "digital revolution" and the "digital lifestyle" suggest the pervasiveness of digital technology and its deep and thorough penetration. As many media students have observed, the devices of this social trend are nothing less than addictive, seducing the user, from the first moment of contact, into a distinctively altered lifestyle process, a spell too challenging for many to resist. A number of serious problems have arisen in table tennis due to this

digital trend, all contributing to a diminution of the sport's culture. The purpose of this paper is to discuss these table tennis consequences and recommend an alternative choice. The approach of this analysis is to use two primary sources as knowledge bases. One is Marshall McLuhan, in particular his seminal work *Understanding Media – The Extensions of Man*¹ [1]. The work of media studies by this giant is used to assist in the understanding of the effects of these media on those exposed to it. His powerful and unique insights have great applicability to the detrimental media consequences discussed in this paper. The second primary source is Donn Olsen's work documenting the principles of the sport, with a particular emphasis on the major book publication devoted to this purpose, *PATT – A Principles Approach to Table Tennis* [2]. PATT as a distinct system of thought is used to help express why some of the effects of digital media are very harmful, as well as form the foundation of advocating for a better way forward.

The paper is composed of six parts including this part which is a general introduction to the paper. The second and third parts present overviews of McLuhan and PATT, respectively, as they pertain to this paper.

¹ McLuhan, having written this book in the 60s, uses "he" and "man" referring to persons throughout his book. We would like to note that this does not represent our view.

2. A MCLUHAN OVERVIEW

This part of the paper will briefly introduce a few of the thoughts of McLuhan that are particularly relevant to this paper and PATT. The range of topics will be severely circumscribed to the minimum needed to promote a quality understanding of the paper. The source of information for Part Two is his book *Understanding Media – The Extensions of Man*.

The medium is the message

McLuhan's most well-known phrase is "The medium is the message." The medium is the message in the sense that the particular "environment" that a particular medium creates affects a vast number of people compared to the almost negligible effect that the content of the medium conveys. For example, according to McLuhan, the medium of photography creates a particular "structure or paradigm of awareness" in the user [3]. Thus, one could say that from transitioning from one medium to another, she is undergoing some kind of paradigm shift.

Very often throughout his career, in his writings and his speaking engagements, he stressed the theme of this phrase, namely, that the fundamental effect of a medium is inherent in the interaction and exposure to the medium, *not in the content of the medium or how the medium is used*. As an example, the basic and profound effect of TV on individuals and societies occurs independently of the content of the television programming. Whether it is cartoons or international news on the screen, the principal effects are the same.

The reason it is the inherent qualities of a medium that are the major source of the medium's influence is that the effects are "subliminal," acting on the subconscious in very powerful but subtle and implicit ways. Each medium has a unique nature of effects. The essential thrust of McLuhan's career has been analyzing and explaining these effects. He continues his discussion of media messages with the following words: "For the 'message' of any medium or technology is the change of scale or pace or pattern that is introduced into human affairs." (U:8)²

In this paper, specifically, photography media and the digital video are analyzed in the context of the sport of table tennis using the McLuhan perspective on the effects of these media.

Media – hot and cold

Perhaps the second most familiar McLuhan formulation is the notion of media categorization as "hot" or "cold." The importance of these groupings is

emphasized in his thought by entitling the second chapter in the book as "Media Hot and Cold." He explains the terms with the following words:

There is a basic principle that distinguishes a hot medium like radio from a cool one like the telephone, or a hot medium like the movie [video] from a cool one like TV. A hot medium is one that extends one single sense in "high definition." High definition is the state of being well filled with data. A photograph is, visually, "high definition." (U:22-23)³

It is clear from the above that McLuhan defines both photography and digital video as hot media.

An important aspect of the hot and cold media designations is what he terms "participation," which refers to the amount of a person's involvement during the interaction with the medium. Using examples, he clarifies the term with the following words:

Telephone is a cool medium, or one of low definition, because the ear is given a meager amount of information. And speech is a cool medium of low definition, because so little is given and so much has to be filled in by the listener. On the other hand, hot media do not leave so much to be filled in or completed by the audience. Naturally, therefore, a hot medium like radio has very different effects on the user from a cool medium like the telephone. (U:22-23)

He elaborates on this principle with the following two statements: "Any hot medium allows of less participation than a cool one . . ." and "the hot form excludes, and the cool one includes." (U:23)

The implications of photography and digital video hotness are significant for students of table tennis using these media to analyze play dynamics. With the extreme amount of information bombarding the psyche, a subliminal protective response occurs, the Freudian "censor" that cools the experience to preserve a semblance of mental equilibrium under the assault, inducing what McLuhan calls "a lifelong state of psychic *rigor mortis*, or of somnambulism, particularly observable in periods of new technology." (U:24) This very low participation state suppresses the analytical engagement; these very means of knowledge and logic-based interrogations needed to understand the subtleties and nuances of table tennis play dynamics are retarded. With this effect it is no wonder that these media perform so superbly as vehicles of entertainment.

² Unless noted otherwise, throughout the paper the initials "U" and "P" are used to refer to the two books, *Understanding Media – The Extensions of Man* and *PATT – A Principles Approach to Table Tennis*, respectively. Accordingly, "U:207" and "P:9-12" refer to p. 207 of *Understanding Media* and pp. 9-12 of *PATT – A Principles Approach to Table Tennis*, respectively.

³ Though his seminal work was published in the 1960s, he anticipated the digital world we have today by noting that video recordings would supplant movie film as a dominant medium. He indicates that the media effects are the same between the two.

Literacy and syntax

Similar to much in McLuhan's writings, the intricacies and full meanings of his use of the terms "literacy" and "syntax" are never directly stated. This unquestionable obscurity necessitates in all of his readers an effort to translate his revolutionary insights into applications that give meaning in the contexts of the reader's interests. This is certainly true for these terms as they may be used profitably in table tennis only with adaptation.

In McLuhan's work, the term "literacy" seems to be an all-encompassing concept that refers to aggregate the effects of technologies such as the phonetic alphabet, written words, print, and books. Shared among these technologies is a mindset oriented to the linear and visual experience that is highly restricted to the simple distinguishing of individual alphabetic letters, coupled with the logical association of the letters into meaningful combinations. Promoted from this is reasoning and logical thought, for the structure of chains of argument in linearity is the basis of analytical thinking.

In the authors' view, it is this mentality, governed by rational processes, that forms the foundation of all thoughtful disciplines, including the sport of table tennis. Furthermore, it suggests that the word, not the image, is the superior medium to communicate table tennis understandings, as the form of knowledge-based, logical constructions as primary expressions greatly surpass in clarity and power all other media options.

The other term under consideration here – syntax – is used by McLuhan in a most creative way. He uses it to mean the setting and structure that a set of elements may be coherently and intelligently expressed within. Syntax is used to organize the details, make sensible the granular units, and create a logical understanding of a constructed structure.

The relevance of McLuhan's notion of syntax to table tennis may be summarized as follows: In table tennis, what serves as the "syntax" of the sport are the principles, those foundational insights that reflect the nature of the sport and the nature of table tennis play dynamics. It is only in the form of principles that the details may be intelligently managed in a coherent manner. It is only in the form of principles that the mechanical actions of the player may be properly understood, taught, and learned. A great service is performed for table tennis by McLuhan's insightful thoughts on literacy and syntax.

Organic and mechanical

McLuhan makes a direct and important contrast between the terms "organic" and "mechanical." By "organic" he is referring to any integral human (or natural) experience, expression, or action, in particular one that has been or is susceptible to industrial automation.

The critically emphasized character of the organic is the holistic, integral complex of qualities that constitute its

nature. It is not simplistic, not straightforward, not composed merely of that which is visible, but one far richer in its intricacies than meets the eye. Often included in the organic constitution is a mechanical feature that gives motion to the entity, manifested as actions that form the end of a process, performing the physical work for a material outcome.

In the McLuhan construction, the contrasting term to organic is "mechanical," a term used to denote the simple visible actions of force. In economic production, much of the industrial revolution may be thought of as the transition from organic processes to mechanical processes.

In his writings he comments, with some wonderment, upon the remarkable "approximation" much of the mechanical has of the organic. A most serious consequence of this has affected the viewing of the organic expression, as many observers are fooled to conclude what actions that are visible to the eye compose the active totality of the entity before them. This deception has few rivals in its breadth of negativity, as such erroneous perspectives distort to a shocking degree the accuracy of the understandings derived from the observations.

Pertinent to this paper, this singular phenomenon of flawed viewing and concluding of the organic and the mechanical in play dynamics has assaulted the table tennis world in the most unforgiving and relentless ways. The player in her play is quintessentially organic, composed of mental, emotional, and physical features, including a mechanical dimension. Only through an uncompromising respect for this complex totality, using as foundational material the principles of the sport, may the true nature of table tennis and its participants be understood.

So far we have briefly introduced some of McLuhan's thoughts, the ones that are frequently used in this paper. In the next part, we will present some perspectives of PATT that are particularly relevant to this paper.

3. A PATT OVERVIEW

PATT (Principles Approach to Table Tennis) is expressed as a system of thought, indicating the effort to present a set of information systemically, coherently, and tightly interrelated. Because table tennis is not linear, PATT is not linear. Instead, the structure resembles a network, with nodes of knowledge connected to and interoperating with other nodes. Because of this interconnected nature, PATT may be felt as rather complex and therefore challenging to understand comprehensively and holistically.

Though the matter of accessibility is valid, three specific structural features organize and express the material in a highly understandable way. These three primary forms of presentation are:

1. Frameworks

2. Decomposition of subject domains
3. Specialized vocabulary

When combined, PATT becomes a coherent representation of the principles of the nature of the sport and play dynamics. The thought may be entered at any node in the PATT network. Upon this first incursion, it quickly become apparent that the journey must soon travel to another node, then another, with, at every point of departure, a number of viable nodes to choose to journey to.

Each node in PATT has its distinct challenges, challenges that tend to be of one of three types: 1) a considerable amount of detail to learn; 2) thoughts expressed that have significant implications and ramifications, all of which are not directly stated; and 3) thoughts expressed that can only be well understood with a sufficient understanding of other nodes. However, to manage the size of the PATT book, such limitations were necessary.

The PATT Institute released its first publication in the series in 2009, *PATT – A Principles Approach to Table Tennis*.⁴ The subject of the book is the underlying principles of table tennis play. Every effort was extended to focus the content to this one view of the principles of the sport. At the same time the PATT Institute has scheduled a set of publications under the category of **Applied PATT** for the purpose of explaining how the PATT principles are applied in the coaching practice and in play dynamics. In the Applied series, the reader will see how the principles discussed in the first book function as the foundation for the mechanical manifestations of player behaviors. Because PATT expresses principles, the book has no pictures; it uses words as the sole medium.

For this paper, the following several primary perspectives of PATT are particularly pertinent.

1. **All thoughtful disciplines are based on principles.** Table tennis is a thoughtful discipline and may only be understood via its principles as a foundation.
2. **PATT contains two categories of principles.** One category contains those foundational understandings as to the nature of the sport. The second category contains principles that apply to specifics within play dynamics. Table tennis contains other categories of principles, such as those for training and sport psychology, which are not yet included within the system.
3. **Table tennis is a game of skill.** (P:73-75) Different sports tend to emphasize one or more distinct attributes as featured qualities of each of the sports. As an example, weightlifting features strength. Table tennis features skill, acquired

through quality instruction, training, and competition experiences.

4. **Table tennis skill is organized into three groups.** (P:73-75) The player skills may be organized into three groups: mental, emotional, and physical. Those, in total, form the organic player. The mechanical dimension of play is found in the physical skills and has the principles as its foundation. The mechanics cannot be understood absent a quality understanding of the underlying principles that govern the mechanical behavior.
5. **Table tennis is complex.** (P:66-69) Those that approach complex domains simplistically are doomed to failure. Holding the perspective that the sport is, in its essence, a mechanical function is an example of the simplistic. Use of digital photography and video promotes the mechanical view.

Engaging in the sport using digital photographs and videos of play dynamics as the primary means of learning how to play the sport is fraught with deficiencies in light of the sophistication of the domain of table tennis.

4. THE USE AND INFLUENCE OF PHOTOGRAPHY IMAGES AND DIGITAL VIDEO ON TABLE TENNIS COACHES AND PLAYERS

This part will discuss the current use of photography and digital video and its influence on table tennis coaches and players. This part is divided into two sections: 4A—McLuhan's View of Photography and Video Images and 4B—the Current State of Influence of Photography Images and Video on Coaches and Players.

4A McLuhan's view of photography and video images

In *Understanding Media*, photography and video media forms are analyzed from the perspective of McLuhan's view on the effects of electric media on those exposed to their influence. These two media are dealt both with separate observations and interrelated comments, for video is composed of "moving pictures," thus there are some shared effects between them. The following discussions on photography and video will intersperse McLuhan's observations with our commentary on the effects of the media in the table tennis context.

Photography

McLuhan notes that one of the "peculiar characteristics" of the photo image is that it isolates single moments in time. In the cases where a photo is taken of a moving object, such as a table tennis player in play

⁴ It is located in Rockville, MD.

dynamics, the before and after movement context is lost, thus eliminating the setting or context that has the potential to convey significant meaning to the photo's isolated view. For those desiring to derive analytical understanding from photos of this type, only pure speculation of the context is available as a means of perception.

According to McLuhan, photos also have the quality of tending to "turn people into things," creating visual images of one-dimensional figures that tend to exclude a sense of the human complexity that makes up the organic whole of the person. This dehumanizing effect is highly detrimental to the psyche of table tennis coaches who must relate well with the composite and interoperative mental, emotional, and physical aspects of the table tennis player. Thus, table tennis photos of play dynamics function as simplifications, fostering an insufficiency in the necessary sophistication needed to understand what is being captured in the isolated moment.

McLuhan continues this theme of simplification and isolation with a contrast between the medium of writing and the photograph. A key characteristic of writing is the necessity of syntax. The term syntax is understood as "the way in which linguistic elements (as words) are put together to form constituents (as phrases or clauses)" and "a connected or orderly system: harmonious arrangement of parts or elements <the *syntax* of classical architecture> [4]." Various comments are made by McLuhan specifying the lack of a syntactical structure in photography, with statements such as "with the photograph . . . men had discovered how to make visual reports without syntax" and "photography as a kind of automation that eliminated the syntactical procedures of pen and pencil." (U:190) This abrupt departure from the thought and perspective fostered by the structure of writing and the promoted perceptions and orientation of linearity and context of literacy subliminally disrupt the highly successful analytical methods of rational thought, for syntax is "the net of rationality" that holds rational thought together. (U:190) This removal of syntax by digital photography is transformational, for under this influence no longer may the power of reasoning be applied as the primary means of comprehension. The absence of sequence linkages makes impossible the application of chained observations necessary for contextual analysis. To the table tennis coach, this has profound negative effects. A reliance on the photograph as an information source robs the mind of the necessary sequential context the photograph was extracted from, eliminating the means for the depth of thought needed for the analytical demands of the coaching profession.

McLuhan reinforces his arguments about the effects of digital photographic images with passages from the Irish poet and novelist James Joyce. Joyce characterizes photograph as "automatic writing," seeing the photo as, in the least case, a "rival of the word," if not perhaps a

usurper of the word. (U:193) Substituting what we once expressed with words by the photograph, we have a reduction of creation to, as McLuhan states it, "a terrible nihilism in the photo and a substitution of shadows for substance." (U:193) With the photograph dominating the attention of the sport's students, all the analytical processes made possible by the expressions of the phonetic alphabet, including techniques that decompose complexities into their constituent parts, are suspended, replaced by a superficiality of focus, one that induces a consciousness of gestalt or "field" perspective. (U:277) The mind, accustomed to the details of print and all its precision, now has a model of perception of a different kind, grasping exclusively at the image level of awareness, an awareness far inferior to word expressions in communicating the substance and intricacies of table tennis play.

Another photography effect noted by McLuhan is a reversal from the effects of the phonetic alphabet. Aspects of the spoken word of sound and gesture that were once "severed" by the use of the phonetic alphabet are now "restored." He states it in the following way:

In fact, the snapshot of arrested human postures by photography directed more attention to the physical and psychic posture than ever before. The age of the photograph has become the age of gesture and mime and dance, as no other age has ever been. Freud and Jung built their observations on the interpretation of the languages of both individual and collective postures and gestures with respect to dreams and to the ordinary acts of everyday life. The physical and psychic *gestalts*, or "still" shots, with which they worked, were much owing to the posture world revealed by the photograph. (U:193)

This photographic effect applies equally well to the individual as to the collective. This contrasts with written and printed language that holds a distinct bias "toward the private and individual posture." He summarizes this point of the argument with this: "Thus, the traditional figures of rhetoric were individual postures of mind of the private speaker in relation to the audience, whereas myth and Jungian archetypes are collective postures of the mind with which the written form could not cope, any more than it could command mime and gesture" (U:193-94)

Now let us see what impact the above can have in table tennis. The negative consequences to the student of table tennis of this photographic inclination are profound, for the severe isolation of the "still shots" captured in play dynamics irresistibly focuses the mind on the physical dimension in posture that is in complete opposition to the organic fluidity of table tennis play that has as its essential substance the composite interaction of the mental, emotional, and physical player dimensions. The sport of table tennis is not one of posture but of integral movement of these three human domain qualities, and only

understanding distortions may result when a medium features one to the explicit exclusion of the others. Promulgating a one-dimensional gestalt image as photography does is to displace out of consciousness the patterns of precise perspective that only words convey. In addition, photography viewing results in a type of collectivism, conforming the audience into an obedience of consciousness that slams against the mental faculties of creativity and unique perspective.

Furthering his thoughts, a key observation by McLuhan on the effects of photography on traditional art has important implications in table tennis. Calling it “the great revolution,” he comments that artists ranging from poets to painters to novelists could no longer find resonance in depicting with their means of expression the world in precise ways, for the photograph has already done that. Instead, these artists moved their attention to “reveal the inner process of creativity in expressionism and in abstract art.” (U:194) He describes the artist’s focus on the creative process that fosters insight into how we create ourselves and our world. The artist abandons the detailed description of the world.

A similar partial but important effect has befallen table tennis due to photography and video. With these media expressions produced in enormous amounts, the students of the sport are no longer inclined to depict in words the detailed descriptions of table tennis play. This representational function is now delegated to the media of photography and video. Unfortunately, in the table tennis world, the serious observer has not followed in the path of traditional artist by adapting her talents to the exploration of the inner intricacies of table tennis play. Instead, this function is left virtually empty, unfulfilled. What remains is the unmediated, unanalyzed avalanche of still and moving pictures unaccompanied by expert perspective and description, contributions of critical need to extract from the images meaningful and valuable understandings.

Another societal effect of photography emphasized by McLuhan that is relevant to table tennis is its contribution to a world of “accelerated transience.” The world moves quickly by, from fashion to fashion, all its elements of expression short lived. In the highly visual culture that has evolved, photographs are displayed and then quickly displaced by other photographs in an increasingly faster pace. This accelerating process phenomenon holds true in table tennis. The detrimental consequences are severe within the sport, for the superficial is promoted over the analytical, the transient over the lasting, the shortening of attention over the deep consideration, and the entertaining over the serious. As McLuhan states it, “fashion is not a way of being informed or aware, but a way of being *with* it.” (U:197)

Brilliantly intertwining different effects and characterizations of photography, McLuhan also describes “the new picture gestalt culture,” a way of living that the photograph influences significantly. These effects are

overwhelmingly underappreciated, for the history of modern society is literary, fundamentally having words, not images, as the basis of thought, expression, and generational cultural transmission. Those from such a literary heritage are poorly prepared to recognize the effects of all of the electric media. He states this phenomenon succinctly with the following words: “. . . the logic of the photograph is neither verbal nor syntactical, a condition which renders literary culture quite helpless to cope with the photograph.” (U:197)

Table tennis parallels this lack of awareness of the effects of the photograph, for it shares the tradition of the word. Because of this, the attention to and promotion of photographs within the sport in massive volumes, displacing in both time and focus other means of relating to table tennis thoughtfully, moves the typical relationship to the sport to much more one of entertainment, leaving behind the possible mechanisms of progress that are at the disposal of the analytical mind predisposed to thought fashioned by literary culture.

By providing much detailed discussion of the current media setting of which photography plays a big part, he employs dramatic phrases such as “this ultimate stage of pictorialization” and “new visual values” to state concisely this cultural orientation. (U:201) In so doing, McLuhan provides the conceptual framework to understand the parallel effects in table tennis. He completes his analysis of photography with this flourish of insight:

To understand the medium of the photograph is quite impossible . . . without grasping its relations to other media, both old and new. For media, as extensions of our physical and nervous systems, constitute a world of biochemical interactions that must ever seek new equilibrium as new extensions occur. In America, people can tolerate their images in mirror or photo, but they are made uncomfortable by the recorded sound of their own voices. The photo and visual worlds are secure areas of anesthesia. (U:202)

It is this anesthetic effect on the table tennis students induced by the digital photograph and video viewing that results in the sport’s “new visual values,” a superficial and unsubstantial mental modality lacking the power of the word.

Video⁵

⁵ McLuhan, writing in the 1960s, only very occasionally refers to video explicitly, as that medium had its great promulgation with the advancement in digital technology. At the time of his writing, the forms of media that represent the effects of video from the McLuhan perspective are movies and film. This section features video-related information from Chapter 29 – *Movies, The Reel World* and numerous other appropriate references throughout the book. To facilitate the use of McLuhan’s words directly to the extent possible, the insertion of the term “[video]” is used to communicate the application of this thought to the topic of this paper.

As noted previously, the effects of photography and video overlap. Video is composed of “moving pictures”; therefore the analysis of some of the influence of video was incorporated in the photography section. The historic relationship between the two media is revealed in McLuhan’s phrase “the movie [video] phase of photography.” (U:201) This video discussion focuses upon the specific points made by McLuhan concerning moving pictures. (U:201)

A fundamental effect of video is expressed by McLuhan in the phrase “On film [video] the mechanical appears as organic.” (U:285) By this he means that the medium of the video leaves the illusionary impression on the consumer of having experienced an organic movement expression, an expression composed of the full spectrum of the organic qualities, yet the actual display emphasizes the more isolated and superficial mechanical dimension. This influence is particularly detrimental for those in the table tennis world seeking greater understanding of play dynamics via the viewing of video, for a sense of the richness of the interoperability of the mental, emotional, and physical dimensions of the player is displaced by merely the mechanical. From this, conclusions are drawn that are based on thoughts of the mechanical, thoughts very inadequate to capture the actual complexities in action. The distortions in understanding are fundamental.

Linking, as he often does, a powerful notion to a number of topics, McLuhan returns to the critically important topic of syntax with this statement: “Movies [videos] as a nonverbal form of experience are like photography, a form of statement without syntax.” (U:285) This is a thematic subject in his thought, for syntax as “the net of rationality” is of great importance, for its absence robs the experience of the basis of critical thought and thus any hope of meaningful comprehension. The variation in effect of this image expression from that of the written word forcefully states the harmful contrast.

McLuhan expands the above observation with the following words: “In fact, however, like . . . the photo, movies [videos] assume a high level of literacy in their users and prove baffling to the nonliterate.” (U:285) For the purposes of this paper, this broad comment may be adapted profitably to the following specific arguments concerning the use and abuse of photography and video images in table tennis play analysis.

First, it must be repeated that all thoughtful disciplines have as foundations sets of principles that hold the most fundamental understandings and insights of each subject domain, including table tennis. For this paper, the “high level of literacy” in McLuhan’s statement is representative of a quality understanding of international-level table tennis principles. In effect, *table tennis literacy* may be defined as a sophisticated grasp of the foundational principles of the sport.

Therefore, from this discussion, the statement that “movies [videos] assume a high level of literacy in their

users and prove baffling to the nonliterate” may now be used to form a powerful conclusion: *In table tennis play analysis, only those viewers holding a high quality comprehension of the sport’s playing principles may be positioned to effectively understand play dynamics expressed in video form.* The baffled are those without the proper preparation of and education on principles.

McLuhan’s subtle mind exposes another truth of video: “Whatever the camera turns to, the audience accepts. We are transported to another world.” (U:286) From the videographer, the viewing angles are selected, the emphasis is placed, the perspective is assigned, and the focus is forced. From the organic expression of play dynamics to the whim of the digital videographer, the viewer is trapped in the imposed images of the producer. Contrasted with the unlimited visual options of viewing live table tennis, the choices melt away, replaced by the “judgment” of the camera.

Another digital phenomenon emphasized by McLuhan is the sheer volume of information presented. The enormous quantity of bits that constitute video images is of such a volume that the consumer has no means of responding psychically to the avalanche. Instead of a relationship with the medium that functions in a more fragmentary way, a way that permits a grasp of detail as is available in the technique of fragmentation found in print, the mind may only receive the data in a large bloc or *gestalt*. It is an image in the truest sense of the term. The consequence of this is a shutting down of all critical thought that needs details as input, for the detail, in overwhelming volumes, massively overdoses the mind’s capacities, making it analytically inoperative. The changes in patterns of perception are profound.

This psychic pressure fosters a type of shock, a stress of information overload that induces a subliminal numbness, a narcotic effect of disabling consequence. Sharp, acute thought gives way to a protective mental state of low participation from the hot medium, permitting the merely vision function to take command of consciousness. The mind, in a “psychological solitude,” sees but does not understand.

The following statement by McLuhan may serve as an apt conclusion to this part: “to say that ‘the camera cannot lie’ is merely to underline the multiple deceits that are now practiced in its name.” (U:192)

4B The current state of influence of photography images and digital video on table tennis coaches and players

Two primary categories organize the discussion of the effects of digital image technology on the students of table tennis play dynamics.

1. The Medium is the Message Effect
2. The Table Tennis Social and Cultural Effect

Both of these effects are severely detrimental to the understanding of table tennis play.

The medium is the message effect

Considerable detail was provided in Section 4A (McLuhan's View of Photography and Video Images) as to the specific effects these digital media have on their consumers. Accompanying McLuhan's views were observations on the particular consequences to coaches and players who employ these media with the intent of understanding table tennis play dynamics.

Of most importance to emphasize is that the totality of these effects is *subliminal*, acting on the psyche, altering the perceptions, thoughts, and mental orientation of those exposed to the media, all actualized in unconscious ways. McLuhan's argument is that such changes are profound in consequence, yet greatly underappreciated are its negative effects for the individual and for society as a whole as the proliferation of the technologies spread widely. The main thrust of argument in this paper is that such negative consequences have invaded the table tennis world, inflecting it with the same influences and deleterious effects.

The digital photography and video media are corrosive to the intellectual tradition of literacy. McLuhan spends much time discussing the contrast between the heritage of rational thought as a product of literate culture and the new electric media and its emphasis on the image. The chain of inference as the distinctive quality of reason and logic has been under attack by the image technologies that close off this analytic approach, submerging it beneath a tsunami of photographs and videos that leaves no space in the mind for anything else.

Analytical functions critical to deepening the understanding of a complex context, such as the method of decomposing a structure into its constituent parts, is supplanted by the experience pattern of the image, characterized as gestalt, a "field" view, a massive bloc of bit data, lacking any precise expression of the essential intrinsic qualities of that on display. He expresses it this way:

Electric media, because of their total field character, tend to eliminate the fragmented specialties

of form and function that we have long accepted as the heritage of alphabet. (U:277)

The typographical tradition that fostered piercing thought into the intricacies of an object or process is replaced by the seduction of the digital image, the image exposure endowing each experience with a mosaic perspective, a unified sensorium that makes no structural or detailed distinctions. The image is indifferent to the types of judgment and perception made possible with the knowledge-based abstract reasoning of literacy, for the mode and consequence of the digital image experience is a mental anesthetic, a numbing of critical thought, a suspension of logical intellectual engagement. In an interview entitled "McLuhan's Wake," McLuhan makes the following statements [5]:

The literate man was all for absorbing things. The new sort of electronic man does not want to absorb things.

Literacy is on the skids.

The inherent subliminal quality of digital photography and video is not the cultivation of awareness as understood in the context of the educational and rational heritage of literate societies, but one of an exposure the mind relates to as a "group icon," resistant to precise evaluation that would reveal its vital qualities and be subjected to the insightful gestures of the mind. Instead, a type of hypnotic state occurs, where the objects and processes are gestalt forms, lacking discernible detail, exposing nothing of their quintessential features that would further understanding of that being observed.

In the specific case of table tennis, the viewer's attention emphasizes a focus upon the mechanical, for truly marvelous mechanical action is on display as a captivating and engrossing experience. This direct media effect is a highly detrimental distortion from the player organic complex that is composed of the mental, emotional, and physical skills that constitutes the true expression of the athlete. McLuhan again provides the insight with the following two statements:

Is not the mechanical at its best a remarkable approximation to the organic? . . . The answer is 'Yes.' (U:278)

The [video] mechanism, aided by the electric light, created the illusion of organic form and movement." (U:348)

For table tennis coaches and players, the harm of this skewing of mind orientation cannot be overemphasized. The simplistic becomes triumphant, and the superficial reigns, as the spell of the mechanical dominates the understandings of play dynamics. Silenced in the

considerations are the underlying principles of the sport that are the foundation of the mechanical player functions, for such depth of thought is not permitted when only the superficial is in attention. With the trance-like bias on the mechanical, also in oblivion are an awareness of and an emphasis on the mental and emotion skills that create the effective context for the physical expression to be realized. In this skeletal construction that is a shadow of the substance needed, the integral player is nowhere to be found.

Thus, with this media experience, the analytical mind is suspended from all but the mechanical. This corruption of thought that occurs is a product of an intellectual absence of the syntax of table tennis—the principles of the sport—for the visual digital media emphasizes only the direct exposure of the moment of action visible to the eye. McLuhan expresses the idea profoundly with the following words: “Movies [videos] as a nonverbal form of experience are like photography, a form of statement without syntax.” (U:285)

Syntax creates the framework for understanding. Without it, little of substance is consciously grasped.

The most far-reaching of McLuhan’s thought is used to complete this part of the discussion, for it cogently states the challenge these powerful media pose to those exposed to the conditioning of their tyranny. He asks rhetorically: “What possible immunity can there be from the subliminal operation of a new medium . . .” (U:329)

His explicit statement on the theme of his great work, *Understanding Media*, has much relevance for this paper:

It is the theme of this book that not even the most lucid understanding of the particular force of a medium can head off the ordinary “closure” of the senses that cause us to conform to the pattern of experience presented To resist [a medium] therefore, one must acquire the antidote of related media like print. (U:329)

The table tennis social and cultural effect

The extensive and growing reliance on table tennis play dynamics photography and digital video as a means of understanding the intricacies of the sport has resulted in a profound transformation in the social and cultural interaction among table tennis students. All of these consequences deviate significantly from the historic models of exceptional table tennis education that produced the finest results. From this new media pattern, a major decline in the understanding of the sport has resulted.

The table tennis social and cultural effect starts with three technology advancements:

1. The increasingly sophisticated and highly affordable digital image display devices, such as personal computers and the array of hand-held equipment with screens

2. The increasingly sophisticated and highly affordable digital image production devices, such as photography cameras and video
3. The development and proliferation of the major digital imagery distribution system, the internet

These three technology trends place the creation, viewing, and distribution of digital images in the hands of very many in the worldwide table tennis community. In McLuhan terms, this is the “implosion of technology,” resulting in greater capabilities in smaller and smaller devices, supporting an increasingly viewing isolation. (U:35) With unrepentant intensity, this community parallels the tendencies of the larger societies with access to these capabilities by producing, distributing, and viewing digital images in unfathomable quantities. From this, the first of the table tennis social and cultural effects is realized: The quantity of time, effort, and focus in the interaction of these three digital image functions within the table tennis community is at an extremely large and growing rate of consumption. This resource utilization is unique in the sport’s history, for at no time in the past has so much of the table tennis student’s energy been expended interacting with digital imagery.

The second social and cultural effect is the change in the relationship of the student with the sport. A large and growing trend is for the student to participate in the sport via the intermediation of digital images a major means of interaction. Increasingly, instead of the direct interaction with the sport in the traditional forms that this takes, the student relates to the sport through the images of the sport that are presented. Because of the commonness of this participation within the community, an impression is left from this, an attitude of legitimacy, a sense of authenticity as to the genuineness of this sport interaction. The failings of this impression are clear, for the subliminal effects of this media influence is light years away from that which results from the organic interaction with the sport, i.e. the playing, the in-person viewing of play, the direct interaction with players, coaches and others, and the visual and tactile contact with the equipment.

The third effect is a result of access to digital images of the finest table tennis players. By this exposure to the brightest brilliance within the sport, many students developed an excessive confidence in their understanding of play and player development. With the opportunity to observe the mechanical on display by the very best, the student is fooled by the seduction of this mesmerizing talent, unappreciative of the complexity before them, a complexity that is based on the principles of the sport and of the playing principles undergirding the enactments in very specific circumstances. What appears as a straightforward playing behavior is a deceit, for the subtlety of the precision, realized by the contribution of expert coaching and an ocean of training, is not delivered in the in-the-moment play dynamic quickness that passes

in the blink of an eye. The organic is replaced by the image. This false and flawed confidence in the degree of understanding the sport that results from this viewing diminishes the sense of need for other sources of information, other educational contacts, as well as other intellectual input. The understanding becomes stagnant, stalled at the digital gateway.

A fourth table tennis community social and cultural effect results from the dual functions of digital images of play dynamics. Used both for entertainment and educational purposes, seductively the media irresistibly intertwines the two, pushing ever more forcefully to the entertainment side, numbing the limited yet real analytical educational possibilities for the viewer. The necessary fragmentation of form and function to reveal the essential qualities is overwhelmed by the “field” character of the image, a gestalt pattern of experience from hot media forcing low participation. Only those viewers steeped in a thorough education of table tennis principles may hope to repel these entertainment forces when it is desirable to do so, for only they have the intellectual equipment needed for the resistance. The others have not the immunity to the exceptional digital power.

Lastly among the social and cultural effects from the consequences of the digital revolution is a culminating infection afflicting a significant portion of the table tennis community. There has developed, in McLuhan terms, a “tribal” sense among those thoroughly embracing a relationship with the sport via the digital image. (U:84) A certain sameness of understanding, a superficiality of focus has evolved as the normative mind set, accepting among the tribal members a surface-only grasp of the sport that is reinforced by a kinship that is self-sustaining and self-perpetuating. By the cultural resistance to understand the sport using other means—reading books, attending coaching courses, studying educational materials from the finest thinkers in the sport (including the exceptional ITTF multi-level coaching course)—a comfortable cruising speed of image-based indifference and unawareness of the great intellectual traditions of the sport is reinforced among those that have embraced this very narrow relationship with the sport. Because the enormous power of culture, the members are oblivious to a richness that will never enter their world.

5. AN ALTERNATIVE APPROACH

Through an analysis of the use and influence of photography images and digital video when coaches and players use these images for analyzing play dynamics, this paper has presented a strong argument for the inherent limitations of such a practice. The trend toward this usage is growing, furthering the concern that the negative consequences of this approach will grow proportionally with the usage.

At this point in the paper, the solution-oriented mind is prompted to inquire as to what the thoughts are for an alternative approach to understanding table tennis play dynamics without the excessive reliance on digital images. Part Five will be devoted to this matter.

The provocateur as savior

The brilliant work of Marshal McLuhan has been the guiding light of this paper in understanding the effects of using two specific digital media—photographs and videos—to understand table tennis play. His insights into media effects are unrivaled in their influence on thoughtful discourse in the field of media studies. For this subject matter, no source of intellectual power compares to McLuhan’s contribution. He, from his first publications to the current day, has been and continues to be the ultimate provocateur, expressing a full spectrum of views, from biting criticism to ebullient praise. Most controversial has been his media cause-and-effect proclamations, declarations of how media, created by human societies, begin to create human societies in forms and functions that reflect the influences of the media these very same human societies created.

It is McLuhan’s work that formed the basis of this paper’s argument for recognizing the severe limitations in the value of photography and video in understanding the intricacies of table tennis play. Because “the medium is the message,” his analysis of these media types has direct application and relevancy to their usage in the sport. Perhaps nothing is more indicative of the most fertile minds than the power to both incisively describe a problem and then present its antidote. We should expect no less from McLuhan, and he does not disappoint. Scattered throughout his trenchant prose are interspersed thought touches that may be used to construct an alternative approach to the dominance of the digital. This part will combine McLuhan’s solution themes with PATT.

An alternative approach

Prevalent in McLuhan’s work is an emphasis on the great challenge of resisting the effects of media. At times, he attaches recommendations on replacement options to these comments on the challenges. It is clear from his writings that the resistance must be accompanied by methods that replace the media used. Both, in tandem, are needed.

A fundamental recommendation is stated in quintessential McLuhanese: “In the future, the only effective media controls must take the thermostatic form of quantitative rationing.” (U:308)

Simply stated, to resist the influence of a medium, less exposure to the medium is needed. Complementing the reduced exposure is this counteraction, using television as an example: “To resist TV, therefore, one must acquire the antidote of related media like print.” (U:329)

Using this guidance, we may now present the following framework for analyzing table tennis play dynamics.

1. **Recognize the organic nature of the player.** The three sets of skills must be acknowledged in the player—mental, emotional, and physical. These interrelate to create the full expression of the player.
2. **Learn the principles of the sport.** Table tennis principles come in two forms—those that express the nature of the sport and those that are foundational to the physical/mechanical behaviors of the player. In McLuhan terms, they function as both the “literacy” and the “syntax” of the sport. They make the sport’s play dynamic expressions intelligible. Presented as frameworks, specialized vocabulary, and as the decomposition of mechanisms, the constituent essence is revealed.
3. **Embrace the existence of table tennis expertise.** There are those select individuals who hold exceptional understandings of the sport. Seek them out and learn from them. Then apply their wisdom in your analyses.
4. **Engage within the traditional table tennis settings as your ruling form of experience.** The richness of the traditional sport’s participations (the play, the instruction, the discussion, and the in-person observation of competition) must constitute the essential interaction with the sport.
5. **Accept the power of the word.** Our successful intellectual traditions are based on the word. It is expressions in words, verbal and print, that are the superior conveyors of understanding.
6. **Respect the systemic and the unified perspective.** It is in the systems of thought that the greatest advancements have occurred, for it is only there that coherence arises from the mass of elemental details that complex domains contain. McLuhan endorses this view with the observation that the book has a natural dynamic of a unified outlook based upon a centralized pattern.
7. **Moderate digital image exposure.** Recognize its value is primarily in entertainment.

We conclude this part with a remarkable formulation from Marshall McLuhan. In a long passage thick with metaphor and beautifully illuminating prose, he comments on the place the artist holds in societies besieged by new media and technologies. The inclusive stress infecting society from these media effects is on a massive scale, yet: “No society has ever known enough about its actions to have developed immunity to its new extensions or technologies [4-5].” On an optimistic note, he then comments that “today we have begun to sense that art may be able to provide such immunity.” (U:64)

There is the recognition that both the artist and our technologies are “ahead of its time.” With the artists’ unique insights, they become indispensable in “shaping and analysis and understanding” of the structures and forms that are the products of electric technology. McLuhan clarifies his use of the term “artist” with this definition:

The artist is the man in any field, scientific or humanistic, who grasps the implications of his actions and of new knowledge in his own time. He is the man of integral awareness. (U:65)

Among many others, he is speaking to us in the table tennis world. We too need our artists, to help with resisting the corrosive effect of the advancing technologies assaulting the organic nature of the sport and to grasp the new knowledge that our dynamic sport creates. Ultimately, it comes to the task of the table tennis coach to be the first to understand the consequences and implications of the evolving sport, using this insight into the contemporary to direct the coaching responsibilities in the most productive and successful ways. It is the table tennis coach that is to be McLuhan’s artist.

6. CONCLUSION

In this paper we have examined the influence of digital photographs and videos on table tennis players and coaches. We supported our case with McLuhan’s insights in various media and the distinct environment they create. Table tennis digital photographs and videos are wonderful forms of entertainment. However, as primary means of analyzing table tennis play dynamics by coaches and players, their value is very modest when contrasted with an option as recommended in part 5 (AN ALTERNATIVE APPROACH).

The growing reliance on these digital media as the principal educational vehicle for students of the sport has precipitated a general lowering of table tennis understanding, for the traditional rich learning environment interacting with expertise in the organic settings of the club and training hall has been significantly displaced increasingly by the isolated context of the individual using digital media.

The lack of awareness of the effects of this digital phenomenon on the sport’s students is highly detrimental. Among the negative consequences of this lack of appreciation is an excessive confidence in the digitally-educated student as to the depth of understanding and insight she possesses. Having a very limited exposure to quality growth opportunities, the student’s obliviousness results in a very inaccurate positive assessment of her knowledge. This misplaced confidence suppresses the

motivation of seeking superior environments; thus the student becomes intellectually stagnant, being principally restricted to the modest value of the digital expressions of photography and video.

It will only be when the broad-based table tennis culture returns to its origins of the club and training hall for student edification will this unfortunate digital trend be reversed.

We would like to close with a quote from the German philosopher Ludwig Wittgenstein who seemed to have anticipated McLuhan's work with this statement: "Tell me *how* you seek and I will tell you what you *what* you are seeking." (original italics) When attempting to understand table tennis play, how it is best performed and how it is best developed, if the method of inquiry (*how* you seek) features digital photography and video displays of top performers, the effect is an overweening focus on the mechanical wrapped in a blanket of entertainment (*what* you are seeking).

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