

Speed Zaps the TV Experience

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In the hit movie *Top Gun*, Tom Cruise remarks emphatically “I feel the need, the need for speed.” Some one hundred years ago Albert Einstein famously observed that speed is a lens through which human perception and experience is transformed. He also noted that time is a stretchable variable thing. It now seems that today’s electronic media business may need to accept a similar view as it seeks to effectively exploit the full capabilities of new television, computer and associated technologies. Indeed there is much to gain (or lose) from new man-machine media interfaces that alter the pace and perception of natural experience. When such transformations are commercialized the revenue model that underpins the media in question needs to be re-examined to see what damage if any has been done. In particular, the pace, parsing and continuity at which media is consumed by advanced devices may alter the effectiveness of the advertising contained therein.

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Time Passing By

To the ancient scriptures that suggest that there is a time for every purpose under heaven, we may add that there is also a preferred speed and pace for each event, action or purpose. In the so-called ‘real world’ we typically experience our surroundings and the events of our lives in ‘real time’, or natural speed. In contrast, in the virtual world of computers and television, ‘time’ is somewhat variable, artificial and elastic and we are allowed to experience content armed by such features as pause, fast forward, rewind, picture-in-picture and the like. These capabilities are not benign as they alter

CMS NewsLine

*“Validating the
Middle Ground”*



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the very nature of our experience as when the 'viewing speed' materially changes the qualitative and quantitative aspects of what is perceived and how it is perceived. In particular, while TV ad skipping may be the cause of controversy, it is the use of -5X, 0X, 1X, 2X, 5X and 10X fast-forward speeds and associated capabilities within the feature sets of DVD, DVR and VOD that significantly transform our viewing. To accept all of this casually as though little of significance has occurred is quite shortsighted as the impact of this on viewer experience can be dramatic when such things as variable speed and parsing of scenes transform perception. The net upshot is that the entertainment as well as the attached advertising is seen through a new 'lens' and the experience altered and at times distorted.

Imagine looking out from a moving airplane and contrast how what you can see appears to you versus to an observer on the ground. Both views are valid yet they impact the perception and the reality of the experience in very different ways. *Unborn tomorrow and dead yesterdays, why worry about them if today be sweet!* (Edward Fitzgerald). You relate naturally to the view from the airplane and everything seems normal enough when you are there. Looking out of the window the world is moving by very fast; and if viewed sporadically, as when intermittently nodding off, you may miss a thing or two, or even lose context. Similarly when experiencing media content and its advertising on a TV in so called 'trick-play' where one can hop, skip

and jump forward and backwards at various speeds to view and review content — we gain time but we may lose connection with a show — or contact with the ground. The nature of the experience we are having is different and its impact on us as viewers has been altered. The significance of this transformation to the commercial interests of networks and content producers cannot be overlooked without peril, as speed indeed changes the perception and the experience of the viewers — and thereby the commercial value of the show.

Staying Focused

This greater complexity — resulting from such things as 'pause' and 'fast forward speeds' — brings with it the need for networks and programmers to place greater emphasis and attention on the 'material content' contained in their programming, or else risk that the essence of their show

is lost via a fast forward or pause action. That is to say that the programming itself must effectively and repeatedly 'point' to that part of the content that is critical to the storyline, to the plot, and to the primary message, or essential experience of the program. It is the viewer's interest in the critical aspects of a program that tend to keep him or her glued to the show. If this connection between the viewer and the material aspects of a program is lost, channel surfing is likely to follow. Thus reinforcing the material content in a program is essential to the commercial interests behind a show and to the

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success of any advertising it contains. When a program is viewed in DVD, DVR or VOD trick-play, the risk is greater that story line continuity will be lost, as when some essential part of a show is missed by the viewer. For this reason all necessary steps must be taken to ensure that the key elements of any program are highlighted and embellished for the viewer to ensure that he or she stays tuned.

There you have it. In contrast, if a viewer were to watch only linear TV he or she may be bored or get frustrated by the programs or by poorly targeted or lengthy advertising, but such a person is unlikely to experience difficulty remaining in contact with the show. However, when advanced TV functionality is brought into play via a DVD, DVR, VOD or other means, the viewer may elect to multi-task several programs and even to dice and splice time segments of various shows at various speeds of viewing. Such a person may save time and get access to more content but may not get as much out of each individual program, as in, say, watching two baseball games at the same time in trick-play mode where pause, fast forward, rewind and show-switching all come into play for live or previously recorded content. Here the quality of the individual experience may suffer greatly as in holding a conversation with several persons at a crowded noisy cocktail party — the overall experience may be enjoyable, but important individual contacts and messages may be missed or lost.

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The classical analogy to this paradoxical situation arises when one is speed reading. Yes, you get through the material more quickly and easily, but you end up skipping a lot and not getting into some of what is of value or important to you. Further the quality of the reading experience may have been altered for the better or for the worse. While speed reading or even scanning a newspaper may not hurt, such a method may not suit reading an engrossing novel. Reading several books at once interlaced within a period of time has some of the same attributes, you may gain a good deal from the diversity of content, but also lose some of your train of thought as

well as immediate intimacy with the details of the plotlines. Further, the quality of the experience has indeed been altered, and not always for the good. Such multi-tasking and parsing of written content may be useful and even necessary in the work-

a-day business environment, but unsuited to the chosen pleasures of leisure time activities. So too it would seem with viewing several shows at once in advanced feature television form.

This analysis suggests that each viewer, depending on his or her circumstance, interests and capabilities, may benefit from slightly different viewing scenarios. That is to say that a great deal of personalization is needed to tailor the advanced TV systems and their methodologies to the needs and requirements of the many

individual users. One size will surely not fit all here, and fit matters a great deal when one is trying to gain and keep a media audience. Further, different programming and different genres may require or benefit from different viewing modes. HDTV for example is really of great value when one is watching such things as 'live' sports and first run movies say on a 16x9 aspect ratio organic fiber display TV. For the nightly news and for old run shows such as *Sienfeld* and *The Honeymooners* it doesn't really contribute that much. When the Masters Golf Tournament is on, the advertising is highly targeted to that viewing demographic, and is kept to a minimum, so a fast forward capability does little to enhance the experience. By way of contrast, an attempt to stay tuned to an ABC Network movie can be a great challenge in linear TV mode as the commercial interruptions run to 4–6 minutes time blocks, making watching such a show in delayed DVR mode a much better experience.

Greater Choice Means Greater Profit

One of the reasons why the communist system failed so miserably is that it provided very little choice, few opportunities for individuality and a lack of sense of freedom. In that vein, the advanced featured TV systems of today embodied in PIP, advanced set-top boxes, DVD players, DVR systems and VOD services enhance choice, individual action and a sense of freedom and control on the part of the

viewers. Hence these systems are very likely to gain in traction and popularity. The question for the commercial interests becomes how to best interface with their viewers in such a broad flexible environment. And that brings us back to speed and time and altered behavior, perception and experience. The question is hardly how the viewers have copped so far and to what degree they have adopted and adapted to the new TV technologies, as that represents only the static situation viewed at one point in time. The real issue is how the viewers and the systems will adapt to one another in a symbiotic dance of change, adjust, change and adjust again, and so on until the man machine interface yields the best possible solution and experience at any point in time, a game that will not end for generations.

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Looked at more closely some form of adjustable (time-travel) speed-control attached to a gauge or two may be needed to allow a viewer to enjoy navigating programming according to his or her needs, desires or moods of the moment. It is important to appreciate the relevance of the fact that people — as biological real world observers — are now able to engage the virtual world of electronic media experience separated from the flow of real time as they vicariously experience media in a 'time is elastic' flex mode. Here experience is transcended by a 'pedal to the metal' time control capability that transforms the 'scene of action' from slow to fast and back and forth as needed while allowing gaps in time to

be created and stitched back together again at will. That is to say the ability to use random access and various speeds of viewing to better experience content as one may wish. Imagine viewing the Super Bowl in such a form, wherein, by slicing and dicing the individual plays and moving about from play to play, one can broaden the experience of 'being' at the game, while actually resting in an easy chair at home far away. Add to that some multiple angle camera shots controlled by the viewer, and you and I are much closer to being 'there'. In all of this, it is the variable time aspect that drives the reconstituted experience. Is this of transformational importance? You bet it is!!!

Although not necessarily aware of it, quite a few folks are somewhat accustomed to time-shifting media and the way it impacts their behavior while enjoying TV — say via the clumsy use of an old VCR. While time shifting is unavailable in the real world it is here in various forms of advanced electronic media, from VOD to DVD. The real issue now is how to properly adapt to this powerful capability. While time shifting is of value in entertainment, its relevance to the media business should not stop there. For example, speed control can help deepen the value of content by providing needed granularity to information and fullness to experience. As William Wordsworth once wrote: "And now I see with eye serene the very pulse of the machine." Think of it, a telescope lets one look out at what is

really big, a microscope lets a person look at what is really small, and now we can 'time travel' the virtual space of advanced media at variable speed while controlling the nature, detail and texture of the experience. As Jackie Stewart the former Formula One world driving champion once noted: by controlling time and speed one can achieve greater performance — surely a word to the wise at Time Warner Cable, TBWA\, DirecTV, Viacom, SBC and all the rest of the media, cable and satellite, advertising and broadband services providers.

Advertising and Time-Shifting

In particular, in the area of promotion and advertising via electronic media, wonderful new means now exist by which to enhance the impact being made on the viewing

public to gain acceptance of advertised products and services. Although the change to process that is necessary may be upsetting to some in the vested establishment, this upgrade portends a better more

impactful advertising experience. The key is to creatively actualize clever speed, time control and multi-tasking capabilities in powerful new ways. In counterpoint, fighting the full use of time shifting in DVR, DVD, VOD and other new technologies as a means of enforcing the commercial or advertising message upon an annoyed viewership is self-defeating. Face it, the cow has long left the barn, so closing the barn door simply leaves one locked inside a dark empty barn! Instead, a creative utilization of new

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capabilities is far more appropriate and will yield much better results. As in most aspects of new sales, promotion and advertising forms, the answers are to be found in the field — where they can be pried out by careful study of actual human response and behavior. No idle Aristotelian speculations allowed here — only careful observation of action and reaction on the ground in a natural setting will do.

Getting back to dear old Einstein, he suggested that we should learn to live in a 4-dimensional world where time is the fourth dimension. Of course that was of very little use except in atomic physics and astronomical studies due to the fact that time is uni-directional and moves at an apparently fixed pace. Not so in the virtual world, and that can make all of the difference. Let us explain. The presentation of media to a real time viewer by a virtual time machine poses some interesting paradoxes as well as opportunities. We all remember the popularity of flashback segments in the movies of the fifties and sixties. The movie director took his viewer back and forth in time from scene to scene to provide background and context out of the past, and thereby enhance the enjoyment of the movie experience — a great technique. The only thing that was missing was control on the part of the viewer of either the content available or the speed of viewing. After all, that was all that was possible at the time. Nowadays there are some in the ITV community that want to create multiple scenario and multiple ending

movies; yet beyond a very limited degree, such a form is just too expensive and therefore unrealistic. However, allowing the viewer random access to the content and providing viewing-speed control, is something that is being achieved today at very modest cost. There you have it, random access and virtual action time travel, what a combination. It is now time for the commercial interests to fully get on the bandwagon. Let's go do it.

Time Travel

The most natural and old-fashioned form of human 'time travel' is experienced via the imagination whenever a person looks back to re-experience the past or thinks forward to imagine the future. At such moments the individual, via his or her 'theater of the mind' a la Rene Descartes, leaves reality and the present behind and vicariously visits the past or 'travels' into the future. Proof

"The most natural and old-fashioned form of human 'time travel' is experienced via the imagination..."

of this is suggested by the fact that at such moments little attention is paid to what is going on in the present, to the extent that daydreaming while driving a car or crossing the street can be dangerous; as when some years ago the author was thrown senseless by a bus in downtown Manhattan as he stepped out onto the street while daydreaming. It is said that such was the fate of Pierre Curie, Madame Curie's husband, when he was hit and killed by a horse and carriage in Paris early in the twentieth century — perhaps at just such a moment.

If to some degree you are persuaded that such vicarious time travel is important to human experience and of potential value in the modern electronic media business, then perhaps you are willing to take it a further step, and consider the idea of proactive time travel. That is the case where advanced media machine modes and content respond to the behavior and wishes of viewer's in an adaptive way. Strange to tell, mystics in India and a whole generation of modern physicists now believe that such manifestations occur in the real world. In fact Nobel Prize winners such as Gell–Man and Feynman and their colleagues have taken the position that it is the 'viewer' in the act of viewing who 'collapse the quantum wave' and allows reality to occur. Taking this sense to the modern electronic media device, we might want it to redesign some devices to operate contextually in conformation with the apparent wishes and actions of viewers. For a simplistic imaginary example consider the ability of the future media device to notice when a viewer's eyes reflect lack of interest and focus and at such moments blink the lights, make a sound or even change the commercial message — say from a pharmaceutical advertisement to an action commercial played out on a bikini beach. Here the media machine and its content react to the viewer. While ad skipping has gained much attention recently, scene skipping is also important — as in jumping past the gratuitous love scene, or tiresome chase scene in an action movie.

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This short visit over the horizon brings us back to the task at hand, which is to seek to maximize the benefit of 'time travel', both to the viewer and to the commercial interests in TV and the Internet that serve him. This is to be accomplished by enhancing the viewing experience of the subscriber as well as by more effectively getting the commercial messages across. On the negative side, as previously noted, such time travel must avoid discontinuities that lead the viewer to lose interest and tune out. This is accomplished via refocusing and repeating the 'material content' and context of the program in a way as that keeps the viewer focused on the action and paying attention. In sports this is commonly done by repeatedly showing the score, or by reviewing key plays and other action — as when 72 year old Don Zimmer of the Yankees charged pitcher Pedro Martinez of the Red Sox in the 4th game of the recent American League baseball playoffs. That woke everybody up!

The Nitty Gritty — What to Do

How is this to be accomplished? The answer may lie in part in the fact that individual scenes have different value for the viewers and that some scenes contain time–dependent content where context must be preserved while others do not. In addition, viewing speed really matters much more in some scenes or parts of a program, while it is of little importance in others. Thus, a priori, the programming itself and the devices

used to show it can be enhanced when they take into account the way the viewing is likely to be experienced by adapting to its natural flow and by adjusting how the commercial messages are conveyed. For example, at a moment of crisis and excitement in a show the viewer is likely to be more alert, to want more detail and to be grateful for the ability to customize the viewing of that segment of content — as in replaying critical scenes in slow motion, or recording the same ad hoc. Following such moments with valuable contextual advertising is very likely to succeed in achieving a high level advertising impression.

A similar idea would be to markup the individual segments or scenes as to the timing and type of interruption that a viewer is likely to accept within the context and flow of the show. Similarly when it comes to the location and form of embedded advertising, or to inserting additional information on the screen while a fast-forward or pause feature is activated — context is really important. Here programming as well as media applications and media services can be optimized to maximize the effectiveness of the content and the impact of the advertising. It may also be valuable to take into account, in real time, recent layback or lean forward actions on the part of the viewer. For example, someone who is manipulating the IPG or channel surfing is to a degree leaning forward and paying attention, therefore advertising placed soon thereafter is

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likely to find a somewhat alert viewer. A sports fan watching a football game is likely to raise his or her interest and become more excited when the scrimmage line approaches the end zone. Thus the speed at which the action is presented could be adapted to the position of the ball on the field, or, similarly, the automatic recording feature might be set accordingly, and so on.

The salient point is that a real opportunity exists to adaptively — not necessarily interactively — take into account the circumstance of the viewing in a manner that renders it much more effective. By way of analogy, consider how beneficial it is to place a feedback loop giving resistance to turning the wheel or stepping on the brake in an automobile. Nothing of the kind seems to exist today in television. The man-machine interface is mostly inert, the machine simply responds as programmed to commands, no more. HAL, the computer, in Arthur C. Clark’s *2001 a Space Odyssey* knew to warn his human clients that something was going wrong with the spacecraft or that an item needed attention. In that sense, additional feedback and control by the VCR, DVD or VOD can be designed in — to enhance the experience and the commercial message — once these devices are enabled to pay a degree of ‘attention’ and even to anticipate some of the actions of the viewer.

As a result of how such capabilities, to change the speed and scene in view, impact the modern TV and PC media experience, interesting possibilities emerge as opportunities to improve the media business and the viewer experience, including:

- Positioning advertising and commercial messages within the natural contextual flow of content and programming.

- Making viewing speed truly flexible and variable while seeking to keep what the viewer sees in quicktime personalized and comfortable.

- Positioning summary and review information throughout the content so that a viewer can stay in tune or easily catch up with the material after channel surfing, switching away for a time, fast forwarding, pausing and the like.

- Automatically capturing and recording key segments and even summarizing certain content, especially in live, news and sports programming.

- Playing off of the fact that TV viewing is a natural layback activity while Internet browsing is a lean forward active form of behavior, and optimizing the way both content and advertising are presented therein accordingly.

- Accepting the fact that viewers are likely to engage in multi-tasking behavior only to the degree that

technology readily allows them to do so without limiting their enjoyment or comfort — ITV advocates take heed.

- Making appropriate provisions for the natural interruptions that occur in the home so that the viewer can readily disconnect, reconnect and not miss too many beats. For example, allowing what follows a pause in viewing to be resumed as playback at (say) 30 seconds before the pause was taken.

- Setting a natural and also a secondary preset speed for each program based on its form and genre so that the viewer starts with at least

two designed-in choices and can work off of these to personalize his or her experience. In this context the advertising inserted into the two forms would likely differ.

These are but a few of the possibilities, the rest are for you to discover. With a brave heart and a willingness to venture and exploit these new media technologies great things may be possible. Exploiting speed and 'time travel' in electronic media is a marvelous opportunity for the consumer and for the many content, network and services providers. All hail H.G. Wells and TiVo!

"...interesting possibilities emerge as opportunities to improve the media business and the viewer experience..."

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(Leo Willner and Greg Kalsow contributed to this issue. In order to discuss any of these points with the authors, please e-mail them at: leo@ad-assoc.com, greg@ad-assoc.com)

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—Georgia Pech, Editor

KALSOW'S BACK-CHANNEL: *"Validating the Middle Ground"*

■ Are all these media mergers and acquisitions about synergy leading to bigger and better managed companies or really about CEO pay packages, investment banker spiffs (Credit Suisse for dinner anyone?) and good old boys dealings? Let me think for a moment — just how long ago was the high tech market crash, and are we at it again? Was AT&T taking over TCI good for cable? Was AOL a boon to Time Warner? Did G.E. improve the TV business by taking over NBC? Was Vivendi a small French water company or a just a big market scam? How about Disney taking over ABC — did the network benefit? I just need a moment to reflect on all those benefits to shareholders, viewers, subscribers, employees and services providers. Now G.E. and Vivendi-Universal are proposing that NBC and VUE become The NBC View (sorry). Also, are we to believe that Rupert Murdoch and News Corp are somehow good for DirecTV and America? A little Déjà vu beverage and a crumpet if you please!

■ Ratings and the measurement of TV are all at once the rage. Nielsen is waltzing with SeaChange while Concurrent and nCube are in the waiting room to do the VOD measuring thing. In the meantime the television networks are up in arms about lower ratings — and Nielsen is in no position to answer or to defend the charge that it no longer fits the game. ITV may be getting a lot of high tech talk and hype, but it is the 30-second spot ad that still pays the bill. They say that the new metric of the age is 'Involvement' on the part of the viewer and they are probably right — so says Carat. Last month this publication chose to chime in with its two cents in an article entitled: ***Making a Good Impression*** — *The Search for New TV Advertising Metrics*. All the while the Advertising Research Foundation, the Marketing On Demand Consortium of CTAM, the Interactive TV Alliance and many others are all working hard on the problem — let's wish them luck. Conclusion: the big advertisers have finally figured out that they are being ripped off — no one seems to be able to quite measure much of anything — and 60 billion dollars of advertiser's money is

still crossing over. And they say that Enron was the big con — stay tuned as this will not go away.

■ When will they ever learn? I guess everyone enjoys picking on the cable MSOs, after all, they make such an easy target. For example, they never ever got the fact that a superior feature set does not necessarily translate into marketing success — so Echostar and DirecTV with their weaker DBS service offerings have been having their way with cable these past few years. Sorry, but it is true. Now cable, under the banner of no price war, is about to let the RBOCs such as SBC do the same number on them, while they once again claim a superior feature set. They just don't wise up, a superior set of features including a much higher download speed mostly matter to a limited number of broadband nerds and to corporate HSD networks. The average broadband user just wants a good deal and QoS, nothing more — over and out. SBC at \$26.95/month sounds a lot more appealing than \$39.95 to \$79.95 from Time Warner Cable, Cox, Comcast and the rest. The rollout of a tiered broadband offering will come too late to save the Band of Brothers, I'm afraid.

[Your mileage may vary. —RGK]

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