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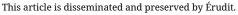
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Introduction

One of the defining features of the developing field of the Digital Humanities (DH) is its interdisciplinary character. This paper will attempt to indicate how theological insights can contribute at a more theoretical level to DH. Specifically, it will attempt to suggest a way that Marshall McLuhan can contribute positively to defining and developing DH. I suspect that McLuhan's notions about technology as an extension of human senses and about the plasticity of human consciousness – and the theological impulse behind them – have a lot to contribute to the discussion surrounding the value of DH. Marshall McLuhan, as a Catholic humanist who anticipated many essential features of digital culture, is a figure uniquely positioned to reveal how theology can apply to this emerging field. I will argue specifically that McLuhan's incarnational principle, critiqued and developed by contemporary digital humanists, can reveal DH to be a fully embodied endeavor that resonates with the malleability of human cognition.

The potential significance of this study is three-fold. First, it looks to show how theology can contribute to DH at a theoretical level – and, more specifically, how a theological anthropology can provide a positive contribution to the development of DH. Second, it aims to address an underdeveloped area of scholarship on Marshall McLuhan by applying the theological impulses that inform his work in media studies. Finally, it attempts to develop and apply McLuhan's insights to DH, promoting DH as a field of scholarship that takes into account both the embodied and malleable nature of human consciousness. This study is not an exhaustive examination of McLuhan's religious thought, nor is it a comprehensive treatment of McLuhan's relevance to DH. What it does seek to do is apply the insights from McLuhan's major books and his explicitly religious writings to the issue of the collaborative nature of DH scholarship. First, I will review the literature dealing with interdisciplinarity in DH and the theological character of McLuhan's

thought. Next, I will look at the central – and at points contradictory – role that the "incarnational principle" plays in his thought. Finally, I will try to amend and apply this principle to demonstrate that DH is an embodied form of scholarship that intuits the plasticity of human consciousness.

Background and Literature Review

One recent definition of DH – and admittedly a very broad one – sees it "as an umbrella term for a diverse set of practices and concerns, all of which combine computing and digital media with humanities research and teaching." The interdisciplinary character of DH is well attested. Yu-wei Lin distinguishes between "inter-" "multi-" and "trans- disciplinarity," arguing that while DH is ultimately in the latter category, interdisciplinarity remains an important mode. Patrik Svensson pictures the field as a "trading zone," or "meeting place," for scholars from defined disciplines, claiming that the "liminal position of the field" is "an important quality." Willard McCarty has recently depicted DH as a field with "a centre all over the disciplinary map and a circumference that is at best uncertain." In a book length treatment of the subject, Julie Thompson Klein notes that while it is frequently claimed that DH is interdisciplinary, "discussion is rarely informed by the voluminous literature on interdisciplinarity." She claims that this neglect results "in imprecise use of terminology and shallow understanding of theory and practice." While the field has an indisputably interdisciplinary character, there is much room for it to draw more consistently on the full range of methodologies and concerns within the humanities and technology disciplines.

Of the humanities scholars to engage DH, those in literary studies, history, and sociology have

¹ Steven E. Jones, *The Emergence of the Digital Humanities* (New York/London: Routledge, 2014), 5.

² Yu-wei Lin, "Transdisciplinarity and Digital Humanities: Lessons Learned from Developing Text-Mining Tools for Textual Analysis," in *Understanding Digital Humanities*, ed. David M. Berry (Hampshire: Palgrave McMillan, 2012), 298.

³ Patrik Svensson, "Beyond the Big Tent," in *Debates in the Digital Humanities*, ed. Matthew K. Gold (Minneapolis, London: University of Minnesota Press, 2012), 46.

⁴ Willard McCarty, "Becoming Interdisciplinary," in *A New Companion to Digital Humanities*, ed. Susan Schreibman, Ray Siemens, and John Unsworth (West Sussex: Wiley Blackwell, 2016), 79. This characterization is particularly interesting for its play on the theological maxim, "God is a circle whose center is everywhere and circumference nowhere," a phrase with a hermetic lineage and a tradition of adoption and modification by thinkers like Nicolas of Cusa, Blaise Pascal, and Voltaire. ⁵ Julie Thompson Klein, *Interdisciplining Digital Humanities: Boundary Work in an Emerging Field* (Ann Arbor: University of Michigan Press, 2015. Klein's project actually exemplifies in practice the very kind of digital collaboration that DH promotes. The book is available in its entirety online, complete with annotating and commenting tools meant to "enrich the reading and learning experience of others and to facilitate community peer review" (xiii).

been particularly well represented. Theologians are also making their contributions, as evidenced by the Ph.D. in Digital Theology at King's College, London (offered in conjunction with the college's Department of Digital Humanities) and the popular *Logos Bible Software*. In fact, many would trace the roots of DH to a theological project – Father Robert Busa's *Index Thomisticus*, an index to the works of Thomas Aquinas begun in 1949.⁶ However, theology's role in DH to this point has been largely pragmatic and technical, producing efforts to digitize texts, create useful digital indexes, etc.⁷

As the father of media studies, and a scholar whose work made him a pop culture sensation, much has been written about Marshall McLuhan (1911-1980). Though most acknowledge the significance of McLuhan's Catholicism, his religious beliefs and their influence on his work has not played a large part in his legacy. As early as 1982, Derrick de Kerckhove, a colleague of McLuhan's, reflected on the basic character of McLuhan's faith.⁸ In more recent years, a special issue of the journal *Renascence* dealt with various theological aspects of McLuhan's work.⁹ John Durham Peters has argued for an understanding of McLuhan as a grammatical theologian in the Catholic humanist tradition.¹⁰ Both Janine Marchessault¹¹ and B. W. Powe¹² have examined the influence of the Jesuit theologian and scientist Pierre Teilhard de Chardin on McLuhan. David Charles Gore and David Beard have argued that McLuhan intentionally "toggled" between the sacred and the secular in the presentation of his work. To this point, work on the religious or theological character of McLuhan's work has been mostly limited to tracing his religious background and theological influences. The interdisciplinary character of

⁶ For more on the history of Busa's project, see Susan Hockey, "The History of Humanities Computing," in *A Companion to Digital Humanities*, eds. Susan Schreibman, Ray Siemens, and John Unsworth (Malden: Blackwell Publishing, 2004), 4-5.

⁷ For a list of DH projects in theology and religious studies, see the appendix to Benjamin P. Murphy, "The Qumran Visualization Project: Prospects for Digital Humanities in Theological Libraries," *Theological Librarianship: An Online Journal of the American Theological Library Association* 5, no. 2 July (2012): 36-38. Also see the essays in Claire Clivaz, Andrew Gregory, and David Hamidović, eds. *Digital Humanities in Biblical, Early Jewish and Early Christian Studies*, Scholarly Communications (Leiden/Boston: Brill, 2014).

⁸ Derrick de Kerckhove, ""Passion and Precision: The Faith of Marshall McLuhan." *Second Nature* March 31, 2014. http://secondnaturejournal.com/passion-and-precision-the-faith-of-marshall-mcluhan/. Originally delivered as a lecture given for the Media Ecology Association on June 4, 1982.

⁹ Including Arnold J. Sparr, "McLuhan, *Renascence*, and the Catholic Revival," 31-42; Read Mercer Schuchardt, "The Medium is the Messiah: McLuhan's Religion and its Relationship to His Media Theory," 43-53; and Benjamin Robertson, "Thinking Trivially About Radical Orthodoxy," 77-87 in *Renascence* 64, no. 1 (Fall 2011).

¹⁰ John Durham Peters, "McLuhan's Grammatical Theology," *Canadian Journal of Communication* 36 (2011): 227-242. Peters understands McLuhan "as a grammatical theologian in the spirit of St. Augustine or Erasmus" (229).

¹¹ Marshall McLuhan: Cosmic Media (London: Sage Publications, 2005)

¹² Marshall McLuhan and Northrop Frye: Apocalypse and Alchemy (Toronto: University of Toronto Press, 2014).

McLuhan's work has been pointed out by Twyla Gibson,¹³ and much has been written that extends McLuhan's theories about electronic media to the Internet and the digital age.¹⁴ However, scholarship that takes McLuhan's theological vision as determinative of his broader interdisciplinary approach and applies that vision to digital technology has not been explored.¹⁵

McLuhan on the Incarnation: A Central Theological Theme

McLuhan's academic training in literary studies was of a fairly traditional character. However, his conversion from a nominal Protestant background to Catholicism in 1937, a process begun during his study at Cambridge, signaled the integral place that theology played in his thinking. McLuhan's first publication was an appreciation of the theologically charged literature of the popular Catholic author G. K. Chesterton, and another early article analyzes the literary aesthetic of James Joyce in terms of Thomistic theology. Eric McLuhan applies

¹³ "Double Vision: McLuhan's Contributions to Media as an Interdisciplinary Approach to Communication, Culture, and Technology," *Media Tropes* 1 (2008): 143-166.

¹⁴ Douglas Coupland's makes a fascinating observation about how McLuhan's religious faith both underwrites his interdisciplinary approach to scholarship and his anticipation of digital culture: "Eternity is not the future, nor vice versa. Although he never phrased it as such, it was the irreconcilability of the world with the afterworld that generated the contradictions that defined much of Marshall's career. On the one hand, technology was a bauble played within the mortal coil. It was not worthy of the respect accorded religion. On the other, it was a transformative agent for the mind and for society. It had to be worthy of the same attention as literature. It was this detachment from the worldly that afforded him an objectivity missing in other social analysts. Constant awareness of the ancient and divine allowed him an unsentimental perspective on the technical and cultural, and on both the modern age and its future." *Marshall McLuhan: You Know Nothing of My Work!* (New York: Atlas & Co., 2010), 47. While McLuhan's faith was not explicit in most of his work, it formed many of the assumptions from which he worked. If Copeland is correct, that faith also enabled a kind of ambivalence that was willing to take full stock of the technological alongside the traditional humanities.

¹⁵ One possible exception to this would be Arthur Kroker, who points out that "McLuhan's Catholicism, in fact, provided him with an epistemological strategy that both gave him a privileged vantage-point on the processed world of technology and, in any event, drove him beyond literary studies to an historical exploration of technological media as the 'dynamic' of modern culture." "Digital Humanism: the processed world of Marshall McLuhan," in *Marshall McLuhan: Critical Evaluations in Cultural Theory*, ed. Gary Genosko (London: Routledge, 2005), 100. Genosko even goes on to note that McLuhan's explorations of technology were "combined with the Catholic quest for a new 'incarnation'" (112). However, Genosko's chapter was originally written in 2001. This predates the Digital Humanities as a defined field of study. Much remains to be explored about how this incarnational vision applies to the specific concerns of DH.

¹⁶ Eric McLuhan notes the wide range of reading that his father undertook in writing his dissertation on Thomas Nashe. This included a heavy dose of theology, including the early biblical interpreters Origen and Philo of Alexandria, the Apostolic and ante-Nicene Fathers, and much medieval theology – especially the works of Thomas Aquinas: "In short he had, from early in his literary studies, also surveyed the entire spectrum of Catholic doctrine and philosophy – an overview such as few Catholic theologians possessed." Introduction to *The Medium and the Light*, xii.

¹⁷ "G. K. Chesterton: A Practical Mystic," *The Dalhousie Review* (January 1936): 455-64.

¹⁸ "Joyce, Aquinas, and the Poetic Process," *Renascence* 4, no. 1 (1951): 3-11. Reprinted in *Renascence* 64, no. 1 (Fall 2011): 89-99. This article includes a passage that anticipates McLuhan's maxim "the medium is the message" in a theological mode. McLuhan makes this observation about the unique structure of the articles in Aquinas's *Summa Theologica*: "Whereas the total shape of each article, with its trinal divisions into objections, respondeo, and answers to objections, is an 'S' labyrinth, this figure is really traced and retraced by the mind many times in the course of a single article. Perhaps this fact helps to explain the power of Thomas to communicate a great deal even before he is much understood. It certainly suggests why he

his father's own distinction between "concept" and "percept" to explain the significance of his faith to his theorizing. More than simply an ideology or a "concept," "Faith is a mode of perception, a sense like sight or hearing or touch and as real and actual as these, but a spiritual rather than a bodily sense...As a way of knowing, faith operates in the realm of percepts, not that of concepts." In this respect, faith acted for McLuhan at an epistemological level, shaping his very assumptions about the process of perception.

More than any other feature of the Christian faith, the doctrine of the Incarnation formed an important guiding principal of McLuhan's thinking.²⁰ In a lecture that anticipates his major works, *The Gutenberg Galaxy* and *Understanding Media*, McLuhan comments on what he understands to be the Catholic response to the symbolist literary school, claiming that

the Catholic has never understood the value of the mystery of ordinary human perception and consciousness. Nor is he likely to overestimate them today. He knows created Being has been marvelously preserved and recreated by the Incarnation, and that the human race in particular has been assumed into the life of the Divine Logos, which is Christ.²¹

While the symbolist exalts ordinary human consciousness as the subject of art, only the Catholic understand precisely why this exaltation is justified. The mysterious and indeterminate nature of human consciousness is tied up with the fact that it is analogous to divine consciousness – an analogy that is made explicit in the full divinity and full humanity (or incarnation) of Christ. McLuhan understands all of human society, including the mass media, in terms of the exalted nature of human cognition. He notes that "the more extensive the mass medium the closer it must approximate to our cognitive faculties." Armed with an

can provide rich esthetic satisfactions by the very dance of his mind – a dance in which we participate as we follow him" (89). Here is an early and partial articulation, rooted in an interdisciplinary approach to theology and literature, of the way that the "medium" of communication actually contains and delivers the "message."

¹⁹ Eric McLuhan, introduction to Marshall McLuhan, *The Medium and the Light: Reflections on Religion*, eds. Eric McLuhan and Jacek Szklarek (Toronto: Stoddart Publishing, 1999), xv. Emphasis original.

²⁰ Arnold J. Sparr elaborates on McLuhan's contributions to the Catholic Literary Revival in the pages of *Renascence*. He notes of McLuhan's frequent book reviews for the journal, "there are numerous instances of...reviews that are filled with allusions to the Mystical Body of Christ, the Incarnation as the central event in human history, and Christian humanist understanding of fallen yet redeemed mankind." "McLuhan, *Renascence*, and the Catholic Revival," 38.

²¹ Marshall McLuhan, "Catholic Humanism and Modern Letters," in *The Medium and the Light*, 158.

²² McLuhan, "Catholic Humanism and Modern Letters," 161.

understanding of the analogous relationship between divinity and humanity that underwrites the exaltation of human perception, "it is especially the job of the Catholic humanist to build bridges between the arts and society today. Because the Catholic humanist can see the Incarnation which informs all arts and traditions of mankind."²³ For McLuhan, those who best understand societal developments, including technological developments, will be those who understand that human nature is capable of communicating the divine.

McLuhan's most definitive statements about the centrality of the Incarnation to his thinking come from his interviews with the Catholic priest Pierre Babin. In discussing the way that the Church had begun to try and "repackage" its message in the electronic age, McLuhan asks a provoking question: "Isn't the real message of the Church in the secondary or side-effects of the Incarnation, that is to say, in Christ's penetration into all of human existence? Then the question is, where are you in relation to this theory?"²⁴ More than a doctrine to be affirmed, the Incarnation is an event which has reshaped reality. Borrowing language from Aristotle, via Aquinas, he refers to the Incarnation as the "formal cause" or "that part of the faith which operates in our lives."²⁵ In this way, Christ, God incarnate, is the archetype of the maxim, "the medium is the message": "In Jesus Christ, there is no distance or separation between the medium and the message: it is the one case where we can say that the medium and the message are fully one and the same."²⁶ At its core, the root insight of McLuhan's theorizing about the shaping power of media is a theological one.

The centrality of the Incarnation to McLuhan's thought has been commented on by some recent scholarship. Alluding to McLuhan's maxim "the medium is the message," Peters speculates that "Perhaps it took a thinker familiar with the theology of the incarnation to take seriously the essentially embodied quality of communication...Messages and people alike are incarnate beings." Read Mercer Schuchardt, commenting on the Gospel of John, notes that "It is in this (and only this) gospel that the equation is made between Christ and the Word or Logos, in John 1. In other words, if the Word is Christ, the medium is the messiah." Working

²³ McLuhan, "Catholic Humanism and Modern Letters," 174.

²⁴ Marshall McLuhan, "Religion and Youth: Second Conversation with Pierre Babin," in *The Medium and the Light*, 102.

²⁵ McLuhan, "Religion and Youth," 103.

²⁶ McLuhan, "Religion and Youth," 103.

²⁷ Peters, "McLuhan's Grammatical Theology," 231.

²⁸ Schuchardt, "The Medium is the Messiah," 46.

with this McLuhan-like pun, Schuchardt concludes that "Though he never coined the phrase, the medium is the messiah may have been McLuhan's ultimate perceptual insight. The medium is the message may have been merely its conceptual phrasing."²⁹ I turn now to look more closely at how that "perceptual insight" actually worked itself out in McLuhan's theories about the transformative power of technological tools.

The plasticity of human consciousness

While this incarnational principle is not explicit in McLuhan's major works, once perceived, it casts its shadow over the themes of *The Gutenberg Galaxy* and *Understanding Media*. This radical recreation of humanity in the Incarnation has implications for the plasticity and malleability of human nature in general – for good or for ill.

In the *The Gutenberg Galaxy* McLuhan traces "the ways in which the *forms* of experience and of mental outlook and expression have been modified, first by the phonetic alphabet and then by printing."30 During the Renaissance, print culture, with its combination of the phonetic alphabet and mass production, brought about a fundamental change in human perception and consciousness. "The interiorization of the technology of the phonetic alphabet translates man from the magical world of the ear to the neutral visual world."31 When a new technology is introduced to a culture, "it gives a new stress or ascendency to one or another of our senses," and "the ratio among all our senses is altered." While premodern cultures were primarily auditory and multisensory, print culture trains the eye intensely rather than the ear. However, electronic technology has radically changed the cultural landscape, ushering in a "post-literate age." Through radio, television, and the telephone, global events become immediate realities. McLuhan warns that "we must learn today that our electric technology has consequences for our most ordinary perceptions and habits of action which are quickly recreating in us the mental processes of the most primitive men."33 The implications of these insights for culture and technology are vast and well commented upon. My main point in sketching them is to point out that for McLuhan, human consciousness and perceptions are not fixed things. McLuhan

²⁹ Schuchardt, "The Medium is the Messiah," 52. Emphasis original.

³⁰ Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man* (Toronto: University of Toronto Press, 1962), 1.

³¹ McLuhan, *The Gutenberg Galaxy*, 18.

³² McLuhan, *The Gutenberg Galaxy*, 24.

³³ McLuhan, *The Gutenberg Galaxy*, 30.

understood human nature to be capable of expanding to accommodate the divine in the person of Christ. On a smaller scale, that same nature is modified in radical ways through human technological manipulation.

In Understanding Media, McLuhan expands these insights to deal more explicitly with the ways that electronic media act as extensions of our senses. He notes that "after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned."34 These technologies are never neutral in their effect. Rather they take a specific form or "medium," and McLuhan reminds us that "in operation and practical fact, the medium is the message." New technologies have the paradoxical effect of both being products or extensions of our existing faculties and also of reshaping our environments in ways that can radically recalibrate the operation of those faculties and senses. Technology is an extension or augmentation of human senses which has the power to shape and reshape our environments. Elsewhere, he poetically expresses his faith in the ability of mankind to find its way in the "cataclysmic environmental changes" presented by electronic media: "I have a deep and abiding belief in man's potential to grow and learn, to plumb the depths of his own being and to learn the secret songs that orchestrate the universe. We live in a transitional age of profound pain and tragic identity quest, but the agony of our age is the labor pain of rebirth."³⁶ As we will see, this was a belief that seemed prone to waver.

For McLuhan, if the incarnate Christ penetrated "all of human existence" and reshaped humanity, then human nature itself must be radically malleable. In *The Gutenberg Galaxy* McLuhan traces how the Western consciousness had radically reoriented itself through print technology, and in *Understanding Media* he explained how electronic media reshapes humanity into citizens of a "global village." In these books, McLuhan's theories about culture, media, and their effect on humanity are an outworking of a core theological impulse – and, it

³⁴ Marshall McLuhan, *Understanding Media: The Extensions of Man* (Cambridge/London: The MIT Press, 1994), 3.

³⁵ McLuhan, *Understanding Media*, 7. McLuhan's take on TV as one such medium illustrates just how thoroughly interdisciplinary his approach is. He notes that "A fairly complete handbook for studying the extensions of man could be made up from selections from Shakespeare." He goes on to connect a mashup of famous lines from *Romeo and Juliet* – "But soft! What light through yond window breaks? It speaks, and yet says nothing?" – with the image of the TV.

³⁶ Marshall McLuhan, "Playboy Interview," in *Essential McLuhan*, eds. Eric McLuhan and Frank Zingrone (New York: Basic Books, 1995), 268.

would seem, a hopeful impulse. McLuhan is often charged with the fault of technological determinism. However, when we fully understand his incarnational principle, the role of technology in shaping human consciousness becomes a hopeful sign. Human nature is capable of and intended to adapt to the environmental changes that come with technology.

Electronic Media as Disincarnate

Paradoxically, McLuhan's incarnational principle is also the source of his critique of electronic culture. Electronic media erases time and space. This prompts McLuhan to ask, "Must the Greco-Roman Church take a stand against the inner tribal and discarnate dynamics released by the electric information environment?" Instead of seeing electronic media as an extension of the body that demonstrates the radical potential and supernatural end of human nature, McLuhan here calls into question whether such technology is compatible with his own understanding of the Christian faith. A medium like the telephone is an example of disembodied presence: "Electric man has no bodily being. He is literally *discarnate*. But a discarnate world, like the one we now live in, is a tremendous menace to an incarnate Church, and its theologians haven't deemed it worthwhile to examine the fact." 38

So, which is it? Does the Incarnation underwrite electronic media as an extension, almost a divinization, of consciousness, or does electronic media contradict the incarnational principle by disembodying human experience? I believe that this is an instance where McLuhan's ambivalence towards technology actually results in a contradiction, or at least a strong tension. As technology has increasingly become an object of study, others have built on McLuhan's insights with more consistency than he demonstrated at times. I will now turn to look at how the work of digital humanists and contemporary thinkers on technology function to critique and develop McLuhan's incarnational principle in fruitful ways for digital technology.

Applying McLuhan to DH

³⁷ McLuhan, "Liturgy and Media: Do Americans Go to Church to Be Alone?" in *The Medium and the Light*, 118. For a recent exploration of McLuhan's understanding of the role of the Church in the era of dis-carnation, see Andrew B. Chrystall, "The later-Mcluhan's dialogue with the church," *Explorations in Media Ecology* 13, no. 2 (2014): 123-138.

³⁸ McLuhan, "Keys to the Electronic Revolution: First Conversation with Pierre Babin," in *The Medium and the Light*, 50.

If electronic and digital media "dis-incarnate," then what application could McLuhan's incarnational principle have for the digital humanities? I believe that this principle could help counter the critique of DH which says that it is simply a faddish application of technical tricks to traditional humanities disciplines.³⁹ McLuhan's application of the Incarnation to technological questions sheds light on technology based humanities scholarship, indicating a strong resonance between these forms of scholarship and the malleable nature of human consciousness. However, to do so, this principle must be applied with a consistency that alluded McLuhan. Digital humanists like Paul Lévy and N. Katherine Hayles have built on McLuhan's understanding of technology as an extension of human consciousness to show how digital tools are part of a fully embodied approach to humanities scholarship. Lévy focuses on the embodied nature of the virtual, while Hayles shows how the material nature of digital tools enhances humanities scholarship.

While McLuhan focuses on the "discarnate" or "disembodied" nature of electronic media, others have highlighted the physical characteristics of virtual technology and digital media. Paul Lévy, writing in the relatively early days of the internet, builds on McLuhan's insights about technology as extensions of human senses. ⁴⁰ In contrast to McLuhan, he assumes a "noncatastrophic point of view" when dealing with virtualization. While "virtual" is often used as a synonym for "illusionary" Lévy insists that "The virtual is by no means the opposite of the real. On the contrary, it is a fecund and powerful mode of being that expands the process of creation, opens up the future, injects a core of meaning beneath the platitude of immediate physical presence." Virtual presence, whether by telephone, TV or computer screen, or virtual image, is in fact an extension of physical presence. It is nonetheless a *real* presence which relies on a physical substrata. In this respect, virtuality is not "unreal" or "disembodied"

³⁹One recent critique insists that DH is simply "about the promotion of project-based learning and lab-based research over reading and writing...and the redefinition of technical expertise as a form (indeed, the superior form) of humanist knowledge." Daniel Allington, Sarah Brouillette, and David Golumbia, "Neoliberal Tools (and Archives): A Political History of Digital Humanities," *Los Angeles Review of Books* May 1, 2016. https://lareviewofbooks.org/article/neoliberal-tools-archives-political-history-digital-humanities/

⁴⁰ McLuhan's work on technology and media clearly forms much of the basis of Lévy's thought. However, he also critiques McLuhan in important ways: "Following Marshall McLuhan and André Leroi-Gourhan, it is sometimes said that tools are the continuation or extension of the body. This theory doesn't seem to do justice to the specificity of the technological phenomena, however... A tool is more than just an extension of the body; it is the virtualization of an action." *Becoming Virtual: Reality in a Digital Age* (New York: Plenum Trade, 1998), 95.

⁴¹ Lévy, *Becoming Virtual*, 16.

⁴² Lévy, *Becoming Virtual*, 16.

but both physical and more than physical.

Lévy's application of this insight to hypertexts not only develops McLuhan's understanding of the transformative nature of technology, but it also critiques McLuhan in a way that makes his best insights more applicable to the developing field of DH. Hypertexts, the virtualization of the printed page, "represent an objectivation, exteriorization, and virtualization of the reading process." Though dependent on the very physical elements of hardware and software for their existence, hypertexts virtualize and expand the reading process. This is something that texts have always done, be they manuscripts, print books, or hypertexts. In this respect, for Lévy, there is no fundamental difference between digitized texts and printed books or newspapers. Something that *is* unique to hypertexts is "a move toward indistinctness, the blending of the functions of reading and writing." As a result, "Hypertextualization objectivises, functionalizes, and brings to power within the community this identification of reader with author." This blurring of the line between reader and author embodies the core collaborative principle of DH, demonstrating how hypertexts facilitate collective scholarship. This sort of collaboration is evidenced, for example, by any number of DH projects that involve collective annotations of digitized texts, creating ongoing virtual seminars.

N. Katherine Hayles is an important figure in DH who has focused on the transformative effects of new kinds of texts and reading. She picks up and develops McLuhan's basic insights in many ways, but with an emphasis on the embodied nature of engagement with digital media and the physical qualities of digital media itself. She takes the position that "all cognition is embodied, which is to say that for humans, it exists throughout the body, not only in the

⁴³ Lévy, *Becoming Virtual*, 57.

⁴⁴ For Lévy, reading is defined not simply as the visual and mental processing of written words, but rather, "reading consists in selecting, diagramming, and constructing a network of cross-references within the text, associating it with other data, integrating words and images within a personal memory that is continuously being updated." *Becoming Virtual*, 57.

⁴⁵ Lévy, Becoming Virtual, 58.

⁴⁶ Lévy, Becoming Virtual, 58.

⁴⁷ Lévy has expanded on the issue of collective intelligence and its implications for DH, drawing in part on the work of Pierre Teilhard de Chardin – a source he holds in common with McLuhan. See Pierre Lévy, *The Semantic Sphere 1: Computation, Cognition and Information Economy* (London: ISTE; New Jersey: Wiley, 2011), 66-69.

⁴⁸ One example of this kind of collaborative project would be the volume edited by Matthew K. Gold, *Debates in the Digital Humanities* (Minneapolis: University of Minnesota Press, 2012). The print edition was published in 2012, but the project continued online after its initial publication. An open-access edition was published in 2013 which allowed readers to comment and interact with the text. It takes advantage of a web-based, digital format to provide an interactive and social reading experience.

neocortex. Moreover, it extends beyond the body's boundaries in ways that challenge our ability to say where or even if cognitive networks end."⁴⁹ She cites the example of "machine reading" as a technique that causes some to accuse DH as moving toward a "posthuman mode of scholarship."⁵⁰ Similarly, many are concerned with what Hayles calls "hyper reading," or screen based reading. This type of reading focuses on juxtaposing texts, "as when several open windows allow one to read across several texts," as well as scanning, "as when one reads rapidly through a blog to identify items of interest."⁵¹ However, she points to the long history of human assimilation and adaption to tools, claiming ultimately that "Technology enabled transformations are nothing new," but rather, part of a "coevolutionary spiral in which humans and tools are continuously modifying each other."⁵² For Hayles, there is no reason to think that we are not capable of combining methods of machine, hyper, and traditional close reading in effective ways. Human cognition is thoroughly embodied, and it does not cease to become so when it is supplemented by digital tools.⁵³ Instead, digital tools hold the capacity to enhance our natural cognitive faculties. As McLuhan observed in light of print and electronic media, so Hayles observes of digital media – human consciousness is thoroughly malleable.

A key distinction for Hayles is that between "materiality" and "physicality." We can talk about the physical features of a computer – screen, wires, circuitry, etc. – but still fail to give an account of technological innovation: "What counts is rather the object's *materiality*. Materiality comes into existence, I argue, when attention fuses with physicality to identify and isolate some particular attribute (or attributes) of interest." You cannot have materiality, in this sense, without the physical or the embodied, but materiality also transcends the physical. Materiality is indeterminate and plastic, unlike pure physicality. Materiality "cannot be specified in advance, as though it existed ontologically as a discrete entity. Requiring acts of human attentive focus on physical properties, materiality is a human-technical hybrid." It is the material, not the reductively physical, that provides the conditions under which humans can coevolve along with

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⁴⁹ N. Katherine Hayles, *How We Think: Digital Media and Contemporary Technogenesis* (Chicago/London: University of Chicago Press, 2012), 17.

⁵⁰ Hayles, *How We Think*, 30.

⁵¹ Hayles, *How We Think*, 61.

⁵² Hayles, *How We Think*, 30-31.

⁵³ Hayles is dependent on the findings of neurological science to show how digital technology can enhance cognition and make the embodied effects of technology more explicit. Of course, this is science to which McLuhan had no access.

⁵⁴ Hayles, *How We Think*, 91.

⁵⁵ Hayles, *How We Think*, 91.

their digital tools. Just as the Incarnation is a way of speaking about how the supernatural end of human nature was revealed when Christ took on flesh, so "materiality" is a way of speaking about how human engagement with technology can take that nature in unexpected directions.

Using Hayles's terminology, McLuhan's understanding of the Incarnation is at times reductive. He understands the incarnational principle to enable the extension of human capacities through media, and yet he also claims that this same media creates a "discarnate" environment. For McLuhan, the Incarnation reveals human nature to be plastic, capable of being joined with the divine. And yet, somehow that nature is not plastic enough to coevolve alongside certain technologies without becoming disembodied. Hayles's understanding of embodiment as materiality rather than simple physicality is actually far more incarnational than McLuhan on this point. The combination of digital tools, like machine and hyper reading, with more traditional approaches to the humanities, actually gives a fully expression to the embodied nature of engagement with the humanities. This means that DH and its tools have the potential to promote the kind of scholarship that recognizes the malleability of human cognition that McLuhan's reflections on the Incarnation establish.

Ultimately, the work of digital humanists like Lévy and Hayles serves to critique and apply McLuhan's understanding of the Incarnation in a way that re-appropriates his central maxim, "the medium is the message" for DH. It does so by showing how the value of McLuhan's incarnational principle can be affirmed for understanding the embodied relationship between humans and their technological tools – and affirmed it in a way that recognizes this relationship is both physical and more than physical. As Hayles would say, it is a relationship of "materiality." This critical re-appropriation of McLuhan's theological basis for media studies suggests that that the medium of DH tools can present a positive and transformative message for the humanities.

Notes

- 1 Steven E. Jones, The Emergence of the Digital Humanities (New York/London: Routledge, 2014), 5.
- 2 Yu-wei Lin, "Transdiciplinarity and Digital Humanities: Lessons Learned from Developing Text-Mining Tools for Textual Analysis," in Understanding Digital Humanities, ed. David M.

Berry (Hampshire: Palgrave McMillan, 2012), 298.

- 3 Patrik Svensson, "Beyond the Big Tent," in Debates in the Digital Humanities, ed. Matthew K. Gold (Minneapolis, London: University of Minnesota Press, 2012), 46.
- 4 Willard McCarty, "Becoming Interdisciplinary," in A New Companion to Digital Humanities, ed. Susan Schreibman, Ray Siemens, and John Unsworth (West Sussex: Wiley Blackwell, 2016), 79. This characterization is particularly interesting for its play on the theological maxim, "God is a circle whose center is everywhere and circumference nowhere," a phrase with a hermetic lineage and a tradition of adoption and modification by thinkers like Nicolas of Cusa, Blaise Pascal, and Voltaire.
- 5 Julie Thompson Klein, Interdisciplining Digital Humanities: Boundary Work in an Emerging Field (Ann Arbor: University of Michigan Press, 2015. Klein's project actually exemplifies in practice the very kind of digital collaboration that DH promotes. The book is available in its entirety online, complete with annotating and commenting tools meant to "enrich the reading and learning experience of others and to facilitate community peer review" (xiii).
- 6 For more on the history of Busa's project, see Susan Hockey, "The History of Humanities Computing," in A Companion to Digital Humanities, eds. Susan Schreibman, Ray Siemens & John Unsworth (Malden: Blackwell Publishing, 2004),4-5.
- 7 For a list of DH projects in theology and religious studies, see the appendix to Benjamin P. Murphy, "The Qumran Visualization Project: Prospects for Digital Humanities in Theological Libraries, Theological Librarianship: An Online Journal of the American Theological Library Association 5, no. 2 July (2012): 36-38. Also see the essays in Claire Clivaz, Andrew Gregory, and David Hamidović, eds. Digital Humanities in Biblical, Early Jewish and Early Christian Studies, Scholarly Communications (Leiden/Boston: Brill, 2014).
- 8 Derrick de Kerckhove, ""Passion and Precision: The Faith of Marshall McLuhan." Second Nature March 31, 2014. http://secondnaturejournal.com/passion-and-precision-the-faith-of-marshall-mcluhan/. Originally delivered as a lecture given for the Media Ecology Association on June 4, 1982.
- 9 Including Arnold J. Sparr, "McLuhan, Renascence, and the Catholic Revival,31-42; Read Mercer Schuchardt, "The Medium is the Messiah: McLuhan's Religion and its Relationship to His Media Theory," 43-53; and Benjamin Robertson, "Thinking Trivially About Radical Orthodoxy," 77-87 in Renascence 64, no. 1 (Fall 2011).
- 10 John Durham Peters, "McLuhan's Grammatical Theology," Canadian Journal of Communication 36

- (2011): 227-242. Peters understands McLuhan "as a grammatical theologian in the spirit of St. Augustine or Erasmus" (229).
- 11 Marshall McLuhan: Cosmic Media (London: Sage Publications, 2005)
- 12 Marshall McLuhan and Northrop Frye: Apocalypse and Alchemy (Toronto: University of Toronto Press, 2014).
- 13 "Double Vision: McLuhan's Contributions to Media as an Interdisciplinary Approach to Communication, Culture, and Technology," Media Tropes 1 (2008): 143-166.
- 14 Douglas Coupland's makes a fascinating observation about how McLuhan's religious faith both underwrites his interdisciplinary approach to scholarship and his anticipation of digital culture: "Eternity is not the future, nor vice versa. Although he never phrased it as such, it was the irreconcilability of the world with the after world that generated the contradictions that defined much of Marshall's career. On the one hand, technology was a bauble played within the mortal coil. It was not worthy of the respect accorded religion. On the other, it was a transformative agent for the mind and for society. It had to be worthy of the same attention as literature. It was this detachment from the worldly that afforded him an objectivity missing in other social analysts. Constant awareness of the ancient and divine allowed him an unsentimental perspective on the technical and cultural, and on both the modern age and its future." Marshall McLuhan: You Know Nothing of My Work! (New York: Atlas & Co., 2010), 47. While McLuhan's faith was not explicit in most of his work, it formed many of the assumptions from which he worked. If Copeland is correct, that faith also enabled a kind of ambivalence that was willing to take full stock of the technological alongside the traditional humanities.
- 15 One possible exception to this would be Arthur Kroker, who points out that "McLuhan's Catholicism, in fact, provided him with an epistemological strategy that both gave him a privileged vantage-point on the processed world of technology and, in any event, drove him beyond literary studies to an historical exploration of technological media as the 'dynamic' of modern culture." "Digital Humanism: the processed world of Marshall McLuhan," in Marshall McLuhan: Critical Evaluations in Cultural Theory, ed. Gary Genosko (London: Routledge, 2005), 100. Genosko even goes on to note that McLuhan's explorations of technology were "combined with the Catholic quest for a new 'incarnation'" (112). However, Genosko's chapter was originally written in 2001. This predates the Digital Humanities as a defined field of study. Much remains to be explored about how this incarnational vision applies to the specific concerns of DH.

16 Eric McLuhan notes the wide range of reading that his father undertook in writing his dissertation on Thomas Nashe. This included a heavy dose of theology, including the early biblical interpreters Origen and Philo of Alexandria, the Apostolic and ante-Nicene Fathers, and much medieval theology – especially the works of Thomas Aquinas: "In short he had, from early in his literary studies, also surveyed the entire spectrum of Catholic doctrine and philosophy – an overview such as few Catholic theologians possessed." Introduction to The Medium and the Light, xii.

17 "G. K. Chesterton: A Practical Mystic," The Dalhousie Review (January 1936): 455-64.

18 "Joyce, Aquinas, and the Poetic Process," Renascence 4, no. 1 (1951): 3-11. Reprinted in Renascence 64, no. 1 (Fall 2011): 89-99. This article includes a passage that anticipates McLuhan's maxim "the medium is the message" in a theological mode. McLuhan makes this observation about the unique structure of the articles in Aquinas's Summa Theologica: "Whereas the total shape of each article, with its trinal divisions into objections, respondeo, and answers to objections, is an 'S' labyrinth, this figure is really traced and retraced by the mind many times in the course of a single article. Perhaps this fact helps to explain the power of Thomas to communicate a great deal even before he is much understood. It certainly suggests why he can provide rich esthetic satisfactions by the very dance of his mind — a dance in which we participate as we follow him" (89). Here is an early and partial articulation, rooted in an interdisciplinary approach to theology and literature, of the way that the "medium" of communication actually contains and delivers the "message."

19 Eric McLuhan, introduction to Marshall McLuhan, The Medium and the Light: Reflections on Religion, eds. Eric McLuhan and Jacek Szklarek (Toronto: Stoddart Publishing, 1999), xv. Emphasis original.

20 Arnold J. Sparr elaborates on McLuhan's contributions to the Catholic Literary Revival in the pages of Renascence. He notes of McLuhan's frequent book reviews for the journal, "there are numerous instances of...reviews that are filled with allusions to the Mystical Body of Christ, the Incarnation as the central event in human history, and Christian humanist understanding of fallen yet redeemed mankind." "McLuhan, Renascence, and the Catholic Revival," 38.

21 Marshall McLuhan, "Catholic Humanism and Modern Letters," in The Medium and the Light . 158.

22 McLuhan, "Catholic Humanism and Modern Letters," 161.

- 23 McLuhan, "Catholic Humanism and Modern Letters," 174.
- 24 Marshall McLuhan, "Religion and Youth: Second Conversation with Pierre Babin," in The Medium and the Light, 102.
- 25 McLuhan, "Religion and Youth," 103.
- 26 McLuhan, "Religion and Youth," 103.
- 27 Peters, "McLuhan's Grammatical Theology," 231.
- 28 Schuchardt, "The Medium is the Messiah," 46.
- 29 Schuchardt, "The Medium is the Messiah," 52. Emphasis original.
- 30 Marshall McLuhan, The Gutenberg Galaxy: The Making of Typographic Man (Toronto: University of Toronto Press, 1962), 1.
- 31 McLuhan, The Gutenberg Galaxy, 18.
- 32 McLuhan, The Gutenberg Galaxy, 24.
- 33 McLuhan, The Gutenberg Galaxy, 30.
- 34 Marshall McLuhan, Understanding Media: The Extensions of Man (Cambridge/London: The MIT Press, 1994), 3.
- 35 McLuhan, Understanding Media, 7.
- 36 Marshall McLuhan, "Playboy Interview," in Essential McLuhan, eds. Eric McLuhan and Frank Zingrone (New York: Basic Books, 1995), 268.
- 37 McLuhan, "Liturgy and Media: Do Americans Go to Church to Be Alone?" in The Medium and the Light, 118. For a recent exploration of McLuhan's understanding of the role of the Church in the era of dis-carnation, see Andrew B. Chrystall, "The later McLuhan's dialogue with the church," Explorations in Media Ecology 13, no. 2 (2014): 123-138.
- 38 McLuhan, "Keys to the Electronic Revolution: First Conversation with Pierre Babin," in The Medium and the Light, 50.
- 39 One recent critique insists that DH is simply "about the promotion of project
- -based learning and lab-based research over reading and writing...and the redefinition of technical expertise as a form (indeed, the superior form) of humanist knowledge."
- Daniel Allington, Sarah Brouillette, and David Golumbia, "Neoliberal Tools (and Archives): A Political History of Digital Humanities," Los Angeles Review of Books
- May 1, 2016. https://lareviewofbooks.org/article/neoliberal-tools-archives-political-history-digital-humanities/
- 40 McLuhan's work on technology and media clearly forms much of the basis of Lévy's

thought. However, he also critiques McLuhan in important ways: "Following Marshall McLuhan and André Leroi-Gourhan, it is sometimes said that tools are the continuation or extension of the body. This theory doesn't seem to do justice to the specificity of the technological phenomena, however...A tool is more than just an extension of the body; it is the virtualization of an action." Becoming Virtual: Reality in a Digital Age

(New York: Plenum Trade, 1998), 95.

- 41 Lévy, Becoming Virtual, 16.
- 42 Lévy, Becoming Virtual, 16.
- 43 Lévy, Becoming Virtual, 57.
- 44 For Lévy, reading is defined not simply as the visual and mental processing of written words, but rather, "reading consists in selecting, diagramming, and constructing a network of cross-references within the text, associating it with other data, integrating words and images within a personal memory that is continuously being updated."

Becoming Virtual, 57.

- 45 Lévy, Becoming Virtual, 58.
- 46 Lévy, Becoming Virtual, 58.
- 47 Lévy has expanded on the issue of collective intelligence and its implications for DH, drawing in part on the work of Pierre Teilhard de Chardin a source he holds in common with McLuhan. See Pierre Lévy, The Semantic Sphere 1: Computation, Cognition and Information Economy (London: ISTE; New Jersey: Wiley, 2011), 66-69.
- 48 One example of this kind of collaborative project would be the volume edited by Matthew K. Gold, Debates in the Digital Humanities (Minneapolis: University of Minnesota Press, 2012). The print edition was published in 2012, but the project continued online after its initial publication. An open-access edition was published in 2013 which allowed readers to comment and interact with the text. It takes advantage of a web-based, digital format to provide an interactive and social reading experience.
- 49 N. Katherine Hayles, How We Think: Digital Media and Contemporary Technogenesis (Chicago/London: University of Chicago Press, 2012), 17.
- 50 Hayles, How We Think, 30.
- 51 Hayles, How We Think, 61.
- 52 Hayles, How We Think, 30-31.
- 53 Hayles is dependent on the findings of neurological science to show how digital technology

can enhance cognition and make the embodied effects of technology more explicit. Of course, this is science to which McLuhan had no access.

54 Hayles, How We Think, 91.

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