The Textile Imaginary: An Alternative Interpretation in Communication Studies

Daniel H. Cabrera Altieri

Universidad de Zaragoza, danhcab@gmail.com

Daniel H. Cabrera Altieri, "The Textile Imaginary: An Alternative Interpretation in Communication Studies," History of Media Studies *2 (2022), https://doi.org/10.32376/d895a0ea.bde56c1e.*

[1] Grant PID2020-113574RB-I00 funded by MCIN/AEI/ 10.13039/50110001103

Abstract

This article[1] draws attention to the relevance of weaving for an alternative conceptualization for the theories of communication. Current vocabulary and a series of everyday expressions keep alive a memory that escapes the *textile amnesia* which seems to characterize our times. Textile metaphors speak of a communicational substrate that goes beyond the narrative resource to its heuristic and cognitive dimensions. A logo-media-centric vision has obscured the role of the loom and weaving in the history of media and, especially, the vivacity of their presence and significance for the Global South countries. The acknowledgment of a *subterranean centrality of the textile* shows some traces for the study of communication from the creative interlacing, care for life and of the *social fabric*.

Resumen

El presente artículo llama la atención sobre la relevancia del tejido para una conceptualización alternativa de las teorías de la comunicación. El vocabulario actual y una serie de expresiones cotidianas mantienen viva una memoria que escapa a la *amnesia textil* que parece caracterizar nuestra época. Las metáforas textiles hablan de un sustrato comunicacional que va más allá del recurso narrativo hacia sus dimensiones heurísticas y cognitivas. Una visión logomediacéntrica ha ocultado el papel del telar y los tejidos en la historia de los medios de comunicación y, en especial, la vivacidad de su presencia y significación para los pueblos del Sur Global. La constatación

de una *centralidad subterránea de lo textil* muestra algunos trazos para el estudio de la comunicación desde el entrelazado creador, el cuidado de la vida y del *tejido social*.

Introduction

The study of communication has been classified from different perspectives, giving rise to multiple assessments and evaluations in various languages and publications.[2] This has generated a meta discursive approach with various classifications of theories, among which the one put forward by Robert T. Craig on the "*traditions*" of research analyzed from a pragmatist approach stands out.[3] The present work takes as a starting point the consideration of the cognitive metaphors and social imaginaries with which communication has been studied to propose an alternative interpretation of communication centered on the metaphor and the imaginary of the fabric.

Communication theories are interpretations that, at some point, resort to heuristic metaphors of various kinds, among which those of *transmission* and the *network* are of significance. A documented search reveals that no interpretation has yet been made from the imaginary of textiles in Euro-American or Global North research centers and universities. However, weaving is not just another metaphor, as we will see, but a fundamental one that has been undoubtedly present since ancient times in various cultures to refer to communication in its various aspects.

This text focuses on the theory of social imaginaries to interpret the cognitive metaphors of communication theories. Logo media centrism in its linearity and teleological evolutionism are discussed as a possible cause of exclusion of textiles. The role of power looms in the industrial revolution and their influence on digital conception using the punch card and the change in the way of looking are presented. Following on from that, the metaphors and textile imagery present in today's everyday language are analyzed and the case of classical Greece as a fundamental moment in the inherited Western Euro-American conception of weaving is discussed. Finally, a textile interpretation of communication is proposed as a creative intertwine, a network of care and a space of *social fabric*.

This article will continue, in a future text, to analyze in more detail the textile imaginary from the Global South, particularly from the Andean space, to propose an alter/native understanding[3] of the phenomenon of communication and its study, communicology.

[2] There are multiple metatheoretical research studies. For the Latin American case, see Raúl Fuentes Navarro, *"Cuatro décadas de internacionalización académica en el campo de estudios de la comunicación en América Latina", Anuario Electrónico de Estudios en Comunicación Social, Disertaciones* no. 2 (2016): 8-26, https://doi.org/10.12804/disertaciones.09.02.2016.01; José Marques de Melo, *Pensamiento comunicacional latinoamericano. Entre el saber y el poder* (Seville, *Comunicación Social*, 2009); Erick R. Torrico Villanueva, *La comunicación pensada desde América Latina (1960-2009)) (*Salamanca: *Comunicación Social*, 2016). There are maps of research such as the "Mapping Media and Communication Research" carried out by the Communication Research Centre of the University of Helsinki in Finland and referring to several European countries, the United States, Japan and Australia. Juha Herkman, "Current trends in media research," *Nordicom Review* 29 :1 (2008): 145–59. Reports available on http://www.valt.helsinki.fi/blogs/crc/en/mapping.htm. For the French case, see Thierry Lancien et al., *"La recherche en communication en France. Tendences et carences", Recherche & communication*, ed. by Thierry Lancien, *MEI (Médiation et Information),* no. 14 (Saint-Denis: L'Harmattan, 2001): 37-62, and the *Journal of Communication*, "Ferment in the Field", special issue 33, no. 3 (1983); "Future of the Discipline", Special Issue 43, No. 3 (1993), and "The State of the Art in Communication Theory and Research", Special Issue 54, No. 4 (2004). Spanish-language quotes in the text have been translated into English by the translator.

[3] Robert. T. Craig, "Communication Theory as a Field," *Communication Theory* 9, no. 2 (1999): 119–20.

Communication and Social Imaginary

Communication theories have been formulated from many metaphors converted into models and conceptual developments that have guided the activity of researchers, media and communicators. In this section, what is proposed is to think about the different interpretations of the phenomenon of communication as imaginaries spoken and visualized by metaphors that culminate with those referring to *transport* and *network*.

Theory, Metaphor and Imaginary

> What, then, is the truth? A mobile army of metaphors, metonyms, anthropomorphisms... and which, after prolonged use, appear to a people to be fixed, canonical, obligatory... metaphors that have become worn-out and without sensible force.
>
> —Friedrich Nietzsche, *On Truth and Lies in the Extra moral Sense*.

Metaphors are fundamental instruments in scientific production that enhance analogical reasoning, the elaboration of hypotheses, the interpretation of results and the communication of findings.[4] The heuristic capacity of metaphorical reasoning makes it essential for doing science.[5] Cognitive psychology states that "every concept is the result of a long series of spontaneous analogies, and the elements of a situation are categorized exclusively through analogies, however trivial they may seem."[6]

In this same tradition, long ago, George Lakoff and Mark Johnson made clear the cognitive role of metaphors in everyday life.[7] In both cases, in the sciences or in everyday life, metaphor is not just a trope but a form of knowledge or even "the engine of thought," since "without concepts there are no thoughts and without analogies there are no concepts."[8] We learn the new, the unexpected, the strange, by similarities and kinship with the known.

Although philosophy had emphasized the role of metaphor, at least since Aristotle's *Poetics*, it is Friedrich Nietzsche who underlines the cognitive dimension of metaphor.[9] The metaphor speaks of living social and cultural contexts, the subjects' experiences, moods, and interests[10][10]. From the theory of social imaginaries, the task of knowledge in the social sciences is to dilute *solid* concepts in their *liquid soil and in the* gaseous *environment in* which they emerged.[11] Interpretation conceived as an alchemical task that returns the determined to the indeterminate, the defined to the indefinite, as a way of giving rise to new interpretations of the categories with which we explain social reality and, in this case, the phenomenon of communication. The imaginary approach aims to question the epistemological

[3] "It is convenient to write this alter/native with a slash to mark not only its potential character of otherness in the face of the Communication that we already have installed in academic studies... but also to make a certain emphasis on the connection of that otherness with the native, the proper and differentiating." Erick R. Torrico Villanueva, "Decolonizing Communication," in *Comunicación, decolonialidad y Buen Vivir,* coord. by Francisco Sierra Caballero and Claudio Maldonado Rivera (Quito: CIESPAL, 2016): 96.

[4] Cynthia Taylor and Bryan M. Dewsbury, "On the Problem and Promise of Metaphor Use in Science and Science," *Journal of Microbiology & Biology Education* 19, no. 1 (2018); Federico Pérez Álvarez and Carmen Timoneda Gallart, "El poder de la metáfora en la comunicación humana: ¿Qué hay de cierto? La metáfora en la teoría y la práctica perspectiva en neurociencia," *International Journal of Developmental and Educational Psychology* 6, no. 1 (2014).

[5] Olaf Jäkel, Martin Döring and Anke Beger, "Science and metaphor: a truly interdisciplinary perspective: The third international metaphorik.de workshop," *Metaphorik.de – online journal on metaphor and metonymy*, no. 26 (2016).

[6] Douglas Hofstadter and Emmanuel Sander, *La analogía. El motor del pensamiento,* trad. Roberto Musa Giuliano (Barcelona: Tusquets, 2018): 73.

[7] George Lakoff and Mark Johnson, *Metáforas de la vida cotidiana*, trad. de Carmen González Marín (Cátedra: Madrid, 2009).

[8] Hofstadter and Sander, *La analogía,* 2.

[9] Daniel Innerarity, "La seducción del lenguaje. Nietzsche y la metáfora," *Contrastes: revista internacional de filosofía*, no. 3 (1998); Cirilo Flórez Miguel, "Retórica, metáfora y concepto en Nietzsche," *Estudios Nietzsche*, no. 4 (2004).

[10] Eduardo de Bustos, *La metáfora. Ensayos transdisciplinares* (Madrid: Fondo de Cultura Económica / UNED, 2000).

basis of communication studies which, it should be remembered, "do not delve much into epistemology," although "seas of ink have been written about the supposed disciplinary status of communication."[12]

Approaching theory as a host of cognitive metaphors leads us to consider its concepts and implications as constructions inspired by the social imaginary, on a path that interpretation can retrace, starting with an attitude of estrangement.[13] Metaphor is a wording and an image of the social imaginary[14]. An imaginary that speaks of the arbitrary and creative relationships between what seeks to understand its deeper role in the creation of universes of meanings.[15]

Communication Theories and Their Metaphors

The explanations of communication contain numerous heuristic metaphors, in most cases not taken as such, and which have been analyzed on several occasions. For example, the "*hypodermic* needle" and the "magic *bullet*" are used[16] to indicate an immediate *effect* and thereby introduce an understanding of communication as social *health* and as *war*. The "*two step flow of communication"* that will have a great journey with the idea of communication[17] as fluid and *process* and of society divided into stages with *opinion leaders* as an explanatory figure. The "*spiral* of silence"[18] presents the circularity and recursion of *minority silence*. The metaphor of the "*agenda*"[19] to conceive of society as a *list* of topics of *conversation*; *frames*[20] applied to communication where information is a *look* through a *window*, a *visual frame*. And so we also have the metaphors of the *conduit*[21], *the* fluid[22], the ecology[23], *the network*[24], the *highway*.[25] Expressions that designate an approach or a theory with concepts whose metaphor is transparent. Even the use of the word "communication" tends to be connoted as concord and coexistence in clear reference, whether consciously or not, to the etymologies of "communication" (the common, to *make common*, *communion*, *community*) *and "information"* (*to* give form) *that refer to* a metaphorical hummus*, a social imaginary, which remains at the core of current meanings.*

Klaus Krippendorff grouped together some metaphors of communication[26] that, based on research and common sense, function as true theories that construct reality. He laid them out in six central metaphors:

- *Metaphors of the receptacle:* referring to "content," "full of meaning," "meaningless," "empty sentences," etc.
- *Conduit metaphors*: derived from the technologies of cable, tube, flow, source, channels, etc.
- *Metaphors of control*: causal phenomenon, environment, instru-

[10] "It is convenient to write this alter/native with a slash to mark not only its potential character of otherness in the face of the Communication that we already have installed in academic studies... but also to make a certain emphasis on the connection of that otherness with the native, the proper and differentiating." Erick R. Torrico Villanueva, "Decolonizing Communication," in *Comunicación, decolonialidad y Buen Vivir,* coord. by Francisco Sierra Caballero and Claudio Maldonado Rivera (Quito: CIESPAL, 2016): 96.

[11] Daniel H. Cabrera Altieri, *Tecnología como ensoñación. Ensayos sobre el imaginario tecnocomunicacional* (Temuco: Ediciones Universidad de la Frontera, 2022).

[12] Tanius Karam, "Tensiones para un giro decolonial en el pensamiento comunicológico. Abriendo la discusión", *Chasqui. Revista Latinoamericana de Comunicación*, no. 133 (2016–2017).

[13] Emmanuel Lizcano, *Metáforas que nos piensan* (Madrid: Ediciones Bajo Cero / Traficantes de Sueños, 2014): 37–71; Jean-Jacques Wunenburger, *La vida de las imágenes*, trad. de Hugo Francisco Bauzá (Buenos Aires: UNSAM, 2005): 21–50.

[14] See Gilbert Durand, *Las estructuras antropológicas del imaginario*, trad. Víctor Goldstein (México: Fondo de Cultura Económica, 2004); Cornelius Castoriadis, *La institución imaginaria de la sociedad*, trad. Antoni Vicens y Marco Aurelio Galmarini (Barcelona: Tusquets, 1993).

[15] Daniel H. Cabrera Altieri, *Lo tecnológico y lo imaginario. Las nuevas tecnologías como creencias y esperanzas colectivas* (Buenos Aires: Biblos, 2006).

[16] José Luis Dader, "La evolución de las investigaciones sobre la influencia de los medios y su primera etapa: Teorías del impacto directo," in *Opinión pública y comunicación política*, de Alonso Muñoz et al. (Madrid: Eudema, 1990).

[17] Paul F. Lazarsfeld and Elihu Katz, *La influencia personal: el individuo en el proceso de comunicación de masas* (Barcelona: Hispano Europea, 1979); Elihu Katz, "The Two-Step Flow of Communication: An Up-To-Date Report on an Hypothesis," *Political Opinion Quarterly* 21, no. 1 (1957).

[18] Elizabeth Noelle-Neumann, *La espiral del silencio*, trad. Javier Ruíz Calderón (Barcelona: Paidós, 2003).

[19] Maxwell E. McCombs and Donald L. Shaw, "The Agenda-Setting Function of Mass Media," *Public Opinion Quarterly* 36, no. 2 (1972).

ments, directing, active passive, improving effectiveness, successful communication, etc.

- *Metaphors of transmission*: of technologies: deciphering, coding, transmitting, encoding/decoding, etc.
- *Metaphors of war:* "defensible" claims, "hitting the mark," "winning" an argument, and so on
- *Metaphors of dance-ritual*: performance, participation, contact, empathy, etc.

Jean Pierre Meunier has also analyzed the explanatory use of metaphors[27] by understanding their code dimension as a telegraph, their action dimension as a coded exchange, the strategy and model of the computer in the understanding of cognitive processes. Like others,[28] Meunier's analysis seeks to warn about the misuse or abuse of metaphors in theories. As it is understood here, the essential problem is not the twisted use of metaphors, but rather that their presence, in a transparent or hidden way, cognitively constructs a *reality* on which one acts in accordance with that same knowledge. Communication is what their theories say and with those definitions we act, we communicate.

Communication Technologies: From Transport to the Network

Metaphors in their heuristic dimension play a very important role in the understanding of communication imaginaries, in tracing their genealogy and in identifying the conceptual matrices from which communication theories have been generated. In this sense, the work of Armand Mattelart and his interpretation of communication stands out, in his words, the "invention of communication," from the archaeologies of four histories: the domestication of *flows* and society in *motion; the* conception and manufacture of a universal *bond* between humans; geopolitical *space*; and the *normalization* and emergence of the individual *calculable*.[29] The tracing of the ideas and strategies of communication in the contemporary world traced from the moment when the mass media did not yet exist allows him to conclude that "the biological analogy has been installed as a natural matrix, a great unifying paradigm, to account for the functioning of communication systems and the link that unites them to society as an organic whole."[30]

John Durham Peters has made his own history of the idea of communication where *dialogue*, whose model is Plato's Socrates, and *dissemination,* according to the model of the Jesus of the evangelists, the media as creators of *ghosts*, communication with the dead, *among*

[20] Gregory Bateson, "Una teoría del juego y de la fantasía", en *Pasos hacia una ecología de la mente*, trad. Ramón Alcalde (Buenos Aires: Editorial Lohlé-Lumen, 1991).

[21] Analyzed by Michael Reddy, "The conduit metaphor: A case or Frame Conflict in our language about language", en *Metaphor and Thought*, ed. de Andrew Ortony (Cambridge: Cambridge University Press, 1993): 164-201.

[22] Vanina Papalini, "La comunicación según las metáforas oceánicas," *Razón y Palabra*, no. 78 (2011–2012).

[23] Analyzed by Carlos A. Scolari, "Ecología de los medios: de la metáfora a la teoría (y más allá)," in *Ecología de los medios: entornos, evoluciones e interpretaciones* (Gedisa: Barcelona, 2015).

[24] Analyzed by Pierre Musso, "Génesis y crítica de la noción de red", trad. de Jorge Márquez Valderrama, *Ciencias Sociales y Educación* 2, no. 3 (2013).

[25] See Patrice Flichy, *Lo imaginario de internet*, trad. Félix de la Fuente and Mireia de la Fuente Rocafort (Madrid: Tecnos, 2003): 25-47.

[26] Klaus Krippendorff, "Principales metáforas de la comunicación y algunas reflexiones constructivistas acerca de su utilización," in *Construcciones de la experiencia humana II*, ed. Marcelo Pakman (Barcelona: Gedisa, 1997).

[27] Jean Pierre Meunier, "Las metáforas de comunicación como metáforas que cobran realidad", *Signo y Pensamiento* 16, no. 30 (1997).

[28] Juan Ramón Muñoz-Torres, "Abuso de la metáfora y laxitud conceptual en comunicación," *Mediaciones Sociales. Revista de Ciencias Sociales y de la Comunicación*, no, 11 (2012).

[29] Armand Mattelart, *La invención de la comunicación*, trad. Gilles Multigner (Bosch: Barcelona, 1995); Armand Mattelart, *La comunicación-mundo. Historia de las ideas y de las estrategias*, trad. Gilles Multigner (México: Siglo XXI, 1997).

[30] Mattelart, *La invención,* 370.

others, constitute true conceptual metaphorical nodes.[31] Far from being narrative resources, metaphors allow us to delve into the matrices of communication, into the space where ideas and imaginaries are knotted to feed a vision of communication "as a risky adventure without guarantees." To justify this, he recalls the etymology of the word communication in that it is problematic and, therefore, is not usually cited. The author dismisses considering the Latin vocabulary *communicare* as the origin and refers to the Greek term *koino*, "more rarely cited but equally relevant," which also means to make common, to communicate, to share, "but also to pollute or soil."[32]

In both cases, from two very different approaches, the task of understanding communication and its media as a central element of today's society is faced and, perhaps for this reason, Lucien Sfez affirms that "a structural convergence between the systematic use of metaphors by the science of communication and the new fact that current communication has also become a *symbolic figure* of importance."[33]

Metaphors have also played a fundamental role in organizing alternative models of communication theories. Under the suggestive title of "The Telegraph and the Orchestra,"[34] Yves Winkin opposes two ways of explaining communication.

On the one hand, Claude Shannon's "mathematical theory of information," which is postulated as the exact transmission of a message from one point to another. The complexity of the mathematical explanation has generated the feeling that the only element of Shannon's theory that has been able to inherit "to the layman in engineering is the image of the telegraph that still permeates the original scheme. We could thus speak *of a telegraphic model of communication*."[35]

On the other hand, an interdisciplinary group with different university campuses composed of Gregory Bateson, Ray Birdwhistell, Edward Hall, Erving Goffman, Don Jackson, and Paul Watzlawick, among others, encouraged the idea of "communication as an integrated whole," that is, as "a permanent social process that integrates multiple modes of behavior: speech, gesture, gaze, mimicry, etc. the inter-individual space, etc."[36] For this reason, Winkin argues that "the analogy of the orchestra is intended to make us understand how each individual can be said to participate in communication, rather than to say that it constitutes the origin or end of it."[37]

Winkin proposes to speak of an *orchestral model* of communication as opposed to the telegraphic linear. The truth is that telecommunications and information technology have transformed our entire world, including the imaginary *of* and *from* which human communication is thought.[38] Undoubtedly, the mathematical model of information

[31] John Durham Peters, *Hablar al aire. Una historia de la idea de comunicación*, trad. José María Ímaz (México: Fondo de Cultura Económica, 2014).

[32] Peters, *Hablar al aire,* 329–30.

[33] Lucien Sfez, *Crítica de la comunicación*, trad. Aníbal C. Leal (Buenos Aires: Amorrortu, 1995): 46.

[34] Yves Winkin, "El telégrafo y la orquesta," in *La nueva comunicación*, ed. Gregory Bateson et al., trad. Jorge Fibla (Barcelona: Kairos, 1984).

[35] Winkin, "El telégrafo y la orquesta," 18.

[36] Winkin, "El telégrafo y la orquesta," 22–23.

[37] It may be objected that a model is not a metaphor, but in this regard, it is worth remembering Max Black's approach when he argues that "every metaphor is the warning of a submerged model". Max Black quoted in Andrés Rivadulla, "Metáforas y modelos en ciencia y filosofía", *Revista de Filosofía* 31, n.º 2 (2006): 189-202.

[38] Juan Luis Pintos, "Comunicación, construcción de la realidad e imaginarios sociales," *Utopía y Praxis Latinoamericana* 10, no. 29 (2005).

has colonized the metaphorical universe with an image/idea that has flooded everything.[39] *Point-to-point transmission,* information transport*, a* data packet, *conduit and* channel, *code*, encoding *and* decoding *, accuracy* Mathematics, among others, are part of a set of metaphors with which people, institutions, companies, governments, and researchers reflect. A few years later, James W. Carey proposed the famous distinction between *transmission* models and *ritual*[40] with some coincidences with what has been said, but with the aim of seeking a constitutive theory of communication.

If we focus on current digital technologies, other metaphors stand out, such as *viral*, *cloud*, *network.* Viral comes directly from marketing designed to spread information very quickly, making it highly likely to be transmitted from person to person through electronic means. The phenomenon of disinformation has laid bare the ambivalence of the *virus*, highlighting its role as information consciously manipulated to provoke states of opinion or actions in a certain direction. For its part, the *cloud* has a rich cultural history in literature, music, and art that "goes beyond the representation of the sublimity of computing" and whose analysis has already been developed[41]. The metaphor of the network *has been mentioned*, perhaps, the metaphor or "fetish word," as Pierre Musso states, more developed from different points of view as a global social, cultural, and economic logic.[42]

The network metaphor has the foundational capacity of the world in which we live. Every metaphor needs to be carefully advanced, although in this case even more so because "metaphors are nothing without the political and metaphysical positions they defend."[43] *Netting* has an obvious origin in the manufacture of fabrics, the net as a set of intertwined threads, lines, and knots. In that sense, he refers to "the mythology of weaving."[44] However, it arrives at the present day through the organic conception that, from Hippocrates, through Galen and Harvey, conceives the human body as possessing a hidden *network* of nerves and veins with invisible *flows* and the brain as *a mesh*.[45] An analogy that would be used repeatedly by René Descartes, Denis Diderot, Henri Saint-Simon, Herbert Spencer, and even in early cybernetics and contemporary ideologues.[46] However, Musso believes that "the modern concept of the network is formed in Saint-Simon's philosophy. He produces the theory of this new logical and biopolitical vision of the network."[47]

The current network concept with channels, conduits, cables, and waves allows for multiple, permanent and switchable connection. The industrial revolution made it possible to invent mechanical networks, such as the telegraph or the railway, and the transformations in computer techniques made self-organizing networks possible.

[39] See Pablo Rodríguez, *Historia de la información. Del nacimiento de la estadística y la matemática moderna a los medios masivos y las comunidades virtuales* (Buenos Aires: Capital Intelectual, 2012); James Gleick, *La información. Historia y realidad*, trad. Juan Rabasseda and Teófilo de Lozoya (Barcelona: Crítica, 2011).

[40] James W. Carey, "A Cultural Approach to Communication," in *Communication as Culture: Essays on Media and Society* (Boston: Unwin Hyman, 1989).

[41] Vincent Mosco, *La nube. Big Data en un mundo turbulento* (Barcelona: Intervención cultural / Biblioteca Buridán, 2014): 26. See John Durham Peters, *The Marvelous Clouds: Toward a Philosophy of Elemental Media* (Chicago: University of Chicago, 2015).

[42] Manuel Castells, *La sociedad de la información,* Vol. 1, *La sociedad red*, trad. Carmen Martínez Gimeno and Jesús Alborés (Madrid: Alianza, 2000).

[43] Castells, *La sociedad de la información,* 47.

[44] Musso, "Génesis y crítica," 203; see Durand, *Las estructuras*, 330–33.

[45] See Robert Jastrow, *El telar mágico. El cerebro humano y el ordenador*, trad. Domingo Santos (Barcelona: Salvat, 1993).

[46] Musso, "Génesis y crítica," 205.

[47] Musso, "Génesis y crítica," 211.

The network has no beginning and no end and with all its mixture "imposes itself as a *technology of the spirit.*"[48] This is evident, on the one hand, in the constant use of the analogy between the mind and the computer and, on the other, in the qualification of "intelligent" referring to the devices and their capabilities. The network is an intermediate figure between the tree, which is too linear, and chaos, disorder. Technology liberates us from linearity and at the same time prevents us from falling into disorder. Today, the imaginary of the network has become a universal master key. However, as obvious as it may seem, the metaphor *of the network* understood in technological materiality and in its logic of operation is not the main point of access to the textile imaginary of communication.

[48] Sfez, *Crítica*, 379; emphasised in the original.

Digital, Writing and Textiles

Interpreting the textile imaginary of communication requires, first, thinking about the relationship between textiles and writing in order to see the treatment that the West has given to fabric as something traditional, not evolved or in any case as a representation of a past within the evolution of human communication. Second, it seems to be forgotten that the industrial revolution involved artisan workshops and power looms. Looms that, on the other hand, not only bequeathed the imagination of the binary with its punch card but also modified the organization of the artisans and their perception of images in competition with other visual technologies such as photography.

Writing and Weaving: Linearity and Teleology

The history of communication seems to be structured from a teleology centered on dominant technologies. It is told as the narrative of a series of inventions and devices that culminates with the latest technologies of the 21st century, in the context of the countries of the North and whose main agents are companies, governments and, along with them, some genius individuals and visionary professionals. In this narrative there are no references to the South of the planet, to the actors and social movements that only appear as the contents of "foreign" stories, as testimonies of "the strange," of the poor and primitive "other" who must be helped and given a voice. In any case, as a place for technology transfer, a business opportunity, even as a "development" aid.

All of this permeates the imaginary according to which communication evolves from primitive stages to contemporary technologies. On this unquestioned point, primary orality (the one prior to

the existence of writing in Walter Ong's sense[49]) would be a primitive mythopoetic stage superseded by writing, especially phonetics (Greek). Orality would be the communication of traditional, mythical, repetitive, and cyclical societies, while alphabetic writing would be the communication of philosophy, science, linear progress.

It is not that there has not been a critique of this evolutionism that leads from the oral to the written[50] and from elementary techniques to digital technologies. The problem is that it is still valid in journalistic discourses and in public circuits, forming part of common sense. This presupposes that communication appears as the product of an evolution from the oral to alphabetic writing, that is, the "complete" writing insofar as it represents the spoken word (with the antecedents of logo syllabic and syllabic writing). Before that, there would be "non-writing" such as the paintings in which primitive drawings express signs, but not linguistic forms. These conceptions are still applied today to the American populations descended from the pre-Columbian peoples, who would be labeled as primitive societies, "*agraphic*," because they did not have alphabetic writing as European society did, but as Luis Ramiro Beltrán says, the "majority of the pre-Columbian native cultures were neither primitive nor agraphic."[51]

Alphabetic writing became the sign and symbol of communication and meaning, ignoring—or reducing to weak copies of—all other cultural practices that express, construct, and communicate meaning. Thus, in the pre-Columbian world there are different "expressive features that structure a symbolic manifestation based on the use and organization of certain elements"[52] such as, for example, dance, music, poems, songs, hymns, squares, buildings, temples, clothing, goldsmithing, drawings, among others.[53] Culture is the production, circulation and consumption of meanings and human communication is essentially symbolization and relation/interaction of meanings between subjects. For this reason, communication and culture cannot be separated as if they were "distinct" "objects of study" that were unrelated.[54] A look at all those practices that have enriched, for example, the legacy of the South American peoples[55]—which are found today in almost all Latin American countries—are like those that can be made of many other peoples. A view that questions the historical presentation of communication[56] and that does not allow it to be conceptualized in any other way than that focused on technical means. Among all these very different practices of communication/culture, textiles stand out. Textile practice as a cultural practice has an alternative dimension to communication centered on alphabetic writing. Rescuing the textile in the substratum of the explanations of communication would lead to reinterpreting the communicational

[49] Walter Ong, *Oralidad y escritura. Tecnologías de la palabra*, trad. Angélica Scherp (México: Fondo de Cultura Económica, 2011): 18.

[50] Jacques Derrida, *De la gramatología*, trad. Oscar del Barco and Conrado Ceretti (México: Fondo de Cultura Económica, 2017).

[51] Luis Ramiro Beltrán, introduction to *La comunicación antes de Colón. Tipos y formas en Mesoamérica y los Andes*, ed. Luis R. Beltrán et al. (La Paz: CIBEC, 2008).

[52] Beltrán et al., *La comunicación*, 20.

[53] Beltrán et al., *La comunicación*, 21.

[54] Héctor Schmucler, "La investigación: un proyecto comunicación/cultura," in *Memoria de la Comunicación* (Buenos Aires: Biblos, 1997).

[55] Beltrán et al., *La comunicación*, 47–73.

[56] As is done, for example, in Francisco Sierra Caballero and Claudio Maldonado Rivera, coords., *Comunicación, decolonialidad y Buen Vivir* (Quito: CIESPAL, 2016); Claudia Magallanes Blanco and José Manuel Ramos Rodríguez, coords., *Miradas propias. Pueblos indígenas, comunicación y medios en la sociedad global* (Quito: CIESPAL, 2016), or the interventions of Alejandro Barranquero

phenomenon from that other place so present, for example, in the Andean textile[57] where the technical appears in another way.

The communicational imaginary of orality and writing in its logocentrism had its elective affinity with media centrism. The unconsciousness of such a relationship became research on communication because of its technical instruments. Photography, press, cinema, radio, then television, computers, cell phones and the internet have made it possible to imagine the centrality of an evolutionary conception of technology in media logical reflection, giving way to deterministic and teleological linear readings.

Beyond the evolution from the mythical to the logical or from logocentrism to media centrism, it may also be that communication is something else and that discovering it may depend on the consideration of textiles as a weaving of technique and writing, because weaving continues to speak of what communication is. Here we try to show that textiles constitute an imaginary of communication that has remained underlying, but alive and acting in the cultural substratum. A naturalized knowledge that manifests itself in the cultural atmosphere when talking about communication.[58]

and Juan Ramos Martín, "Luis Ramiro Beltrán and Theorizing Horizontal and Decolonial Communication", *in The Handbook of Global Interventions in Communication Theory*, ed. by Yoshitaka Miike and Jing Yin (New York: Routledge, 2022); Raúl Fuentes Navarro, "Latin American Interventions to the Practice and Theory of Communication and Social Development: On the Legacy of Juan Díaz-Bordenave," in Miike and Yin, The Handbook, and *Eva González Tanco and Carlos Arcila Calderón, "Buen Vivir as a Critique of Communication for Development," in Miike and Yin,* The Handbook

[57] Beltrán et al., *La comunicación*, 225–51.

[58] Daniel H. Cabrera Altieri, "Exploraciones sobre el significado de la técnica y la escritura," in *Cosas confusas. Comprender las tecnologías y la comunicación*, ed. Daniel H. Cabrera Altieri (Valencia: Tirant lo Blanch, 2019), and Daniel H. Cabrera Altieri, "Lo textil como vía para repensar la comunicación/tecnología," in Cabrera Altieri, *Cosas confusas*.

Capitalism and Power Looms

The linearity of the interpretation of the "media" tends to leave aside a technology fundamental to Western capitalism, such as automated looms. Power looms were the instruments of the industrial revolution. Joseph-Marie Jacquard (1752–1834) gave his name to the most famous loom with which capitalism acquires its definitive profile. It was used "for fabrics with large patterns, in which all or most of the threads of the drawing rise or fall independently of each other; in this way lines and figures of all kinds can easily be reproduced in the fabric."[59]

Contrary to what its name may suggest, the automatic knitting machine was the result of more than a century of various inventions and constructions.

[59] Thomas W. Fox, *Maquinaria de tejidos*, trad. Francisco Madurga (Barcelona: Bosch, 1919): 440.

Contemporaneous with automatic knitting machines, Charles Babbage, an English mathematician, designed a "difference engine" to construct mathematical tables and in 1834 proposed an "analytical engine" to perform a wide variety of numerical calculations. However, he wryly noted that the machine "would be capable of doing anything but composing folk pieces."[60] Although the concept of the machine was still far from a general-purpose computer like today's, it raised the idea of a mechanism in relation to a logic of operation. On this point, Ada Lovelace stands out who, as Babbage's assistant and enthusiast of his machine, was the one who related the Analytical

[60] Huskey citado en Martin Davis, *La computadora universal. De Leibniz a Turing*, trad. Ricardo García Pérez (Barcelona: Debate, 2002): 165.

Engine to the Jacquard loom: "we can say without fear of being mistaken that the Analytical Engine weaves algebraic models exactly as the Jacquard loom weaves flowers and leaves."[61] Although it is also known that Babbage himself, who had a Jacquard loom, set out to use punched cards like those of the automatic loom in the analytical engine he had designed.

[61] Goldstine, cited in Davis, *La computadora*, 202.

These cards, also used by pianolas and census machines at the beginning of the twentieth century, became the first memory of the digital world. The punch cards quickly proved themselves to be supports for a binary language that needed to be stored. This first hard drive made the hole "the other option" to the surface and space.

Although power looms and their influence are well-known in the history of computing, the histories of communication techniques do not take them into account. Among other reasons, because of the inability to see the common imaginary that relates looms to the media, and fabrics to communication.

The technical functioning of the loom and the human work of the textile workshops allowed greater productivity in the automated industrial processing of fabrics, but an important problem was the separation between the loom builder and the weaver, because "the builder lacks experience in the use of the loom and the weaver does not have sufficient knowledge of mechanics to develop the ideas that occur to him during practice."[62] In the case of the weavers of Lyon, after a period of rejection, they generated new modes of organization in the use of looms that led to an increase in the human imagination and an effort to increase the complexity of fabrics in their quest to make textiles compete with the dominant media of the time (engraving, engraving, etching, etching, etching, etch printing, painting) and with the new medium of photography. The power loom allowed them a new form of digital imaging based on textiles.[63]

[62] Fox, *Maquinaria de tejidos*, 1.

Understanding the relationship between the power loom, i.e., the apparatus with its complexity, the organization of artisans in its use, the production of fabrics, even their commercialization and influence on the economy, poses a problem common to the history of technologies and the history of the media. The first is technological determinism which, in the case of the media, is applied to the transformation of attention, memory, knowledge, the formation of public opinion, changes in the spatial-temporal scale. In these approaches, such as those of Marshall McLuhan,[64] the problem lies in the teleology of change that concentrates on the means and technologies that triumph, subsuming the explanation to an evolutionary linearity, a progressivism that focuses on powerful media and the power relations in which they participate. The history of the media is thus integrated into an apparently unconscious movement that is moved

[63] Ganaele Langlois, "Distributed Intelligence: Silk Weaving and the Jacquard Mechanism," *Canadian Journal of Communication* 44, no. 4 (2019). See Sadie Plant, *Ceros + unos. Mujeres digitales + la nueva cultura*, trad. Eduardo Urios (Barcelona: Destino, 1998).

[64] Marshall McLuhan, *La galaxia Gutenberg. Génesis del "Homo typographicus,"* trad. Juan Novella. (Barcelona: Círculo de Lectores, 1993).

by the force of its argumentation and its efficiency and effectiveness. The case of the Jacquard loom as a complex human-machine collaboration technology is an example of a digital media system not yet dominant, which fosters immense creativity. As Ganaele Langlois has analyzed, it can be an example, which leads us to think about the opportunities to explore the potential of non-dominant media systems that go unnoticed by media centrism.

Weaving, its Metaphors and Imaginaries

Delving into the considerations of fabrics implies a forgetting of textiles as communication, as the production of meaning. A kind of amnesia that has instruments of cure when its omnipresence in the vocabulary and expressions of everyday life is investigated, to make transparent the ancient kinship between tissue and human communication. It is about the possibility of focusing the reflection on communication from subaltern practices, from crafts before technologies, from women before men, from the South before in the Euro-American West, from the word and the community before from technologies and companies.

Textile Amnesia?

> ... The awakening of dormant memories caused by the analogy seems to be so close to the essence of what it means to be human that it is difficult to imagine what mental life would be like if it did not exist.
>
> —Douglas Hofstadter and Emmanuel Sander, *The Analogy. The engine of thought*.

Textiles are an activity and an imaginary that accompanies human beings from the Neolithic period to the present day. A past that is present in constant archaeological finds of weaving tools (spindles, looms) and, above all, in the vocabulary of everyday life that relates various human actions to the world of thread, weft, warp. Anthropologist Tim Ingold defends the idea that spinning, braiding, and weaving are among the most archaic human arts, stating that "the making and use of threads may be a clear indication of the emergence of characteristically human life forms."[65]

Despite its anthropological importance, weaving enjoys a rare privilege, the invisibility of its presence and the irrelevance of its consideration. To the point that the central role of textiles in the history of technology, commerce, and civilization proper has been "overlooked."[66] For this reason, Virginia Postrel assures that today's society suffers from a "textile amnesia."[67] Given the abundance of

[65] Tim Ingold, *Líneas. Una breve historia*, trad. Carlos García Simón (Barcelona: Gedisa, 2015): 69. See Tim Ingold, "The textility of making", *Cambridge Journal of Economics* 34, no. 1 (2010).

[66] Virginia Postrel, *El tejido de la civilización. Cómo los textiles dieron forma al mundo*, trad. Lorenzo Luengo (Madrid: Siruela, 2020): 12.

[67] Postrel, *El tejido*, 286.

textiles, there is no awareness of how intertwined human life, in its different dimensions, is with fabric.

Textile production is reflected in the oldest writing systems. Fabrics, spindles, and looms, among other portraits from the textile world, are represented in the cuneiform script of Mesopotamia, in the hieroglyphs of Egypt and in the linear script of the Aegean, referring to a conceptual universe close to the current one.[68]

Textiles are a phenomenon common to humanity, from intertwining and simple knots of plant and animal threads to complex works in multiple cultures and places around the world. The history of weaving and its historical evolution is based on three facts: the discovery of crossbreeding with flexible materials; its elaboration to obtain a thread, and the necessary instruments to hold the threads with the necessary tension.[69]

The old European industrial manuals define weaving in relation to warp and weft as "interweaving a series of threads placed in the direction of the length of the fabric with another series of threads placed transversely in the direction of width."[70] And they divide the textile industry into three parts: spinning ("operations necessary to obtain the fibers..."), weaving ("manufacture of fabrics") and dyeing and sizing (necessary operations of beautifying and finishing fabrics).[71]

From the Andean artisanal point of view, weaving has been defined as "the interweaving of a system of threads called warp by a system of threads called wefts, whose constant feature is the formation of the paso or fretwork (space that is formed between the warp threads for the passage of the weft). The other traits can always have an exception."[72]

The interweaving and stages of textile activity come from ancient[73] times and remain alive in various places, among which the Latin American Andean region stands out in a special way, where weaving occupies a central place in many communities.[74] Research in the Andean region forces us to reconsider communication from a pre-Columbian anthropology that is still alive in its miscegenation and hybridizations.

The Language of Weaving

Contemporary languages refer to the ancient textile world in very diverse contexts, although with special dedication to the expression and understanding of human communication. Etymologies and phraseology provide multiple examples.

Etymologies[75] of Western languages[76] recall the intimate relationship between "textile," "text" and "technique." All derived from the

[68] Agnès García-Ventura, "Imágenes del universo textil en las primeras escrituras", *Datatèxtil*, n.º 14 (2006): 20-31, https://raco.cat/index.php/Datatextil/article/view/278625.

[69] Rita Barendse y Antonio Lobera, *Manual de artesanía textil* (Barcelona: Alta Fulla, 1987): 9.

[70] Fox, *Maquinaria de tejidos*, 5.

[71] Max Gürtler and W. Kind, *La industria textil*, trad. Ricardo Ferrer (Barcelona: Labor, 1947): 17.

[72] Clara M. Abal de Russo, *Arte textil incaico en ofrendatorios de la alta cordillera andina. Aconcagua, Llullaillaco, Chuscha* (Buenos Aires: CEPPA, 2010): 50.

[73] Véase Anni Albers, *On Weaving* (Nueva Jersey: Princeton University Press, 2003).

[74] Eva Fischer, *Urdiendo el tejido social. Sociedad y producción textil en los Andes bolivianos*, trad. Eva Fischer (Berlín: Lit Verlag, 2008): 26.

[75] The following resources have been used: *Online Spanish etymological dictionary*, last modified on May 18, 2022,

Indo-European root *teks-* (meaning weaving, fabricating, assembling, carpentry) from which derives the Greek *tekton* (meaning of structure, construction, work and, in English, *tectonic, architect*) and *téchne* (meaning technique, art and, in English, *technique, technocrat, technology*) and through the Latin *tela (arrives: fabric, loom, subtle); texere* (whence weaving, braiding, interlacing), *textus* (participle fabric of *texere*, whence text, pretext, hypertext).

There is also a kinship between linen and line. The Indo-European root *li-no-* through the Greek *linon* and the Latin *linum* has given rise in Spanish, among others, *lino, linea* and online. And the presence of thread from the Indo-European root *gwhi-* meaning thread and filament and through the Latin *filum* (*filo*, line of a contour, *hilo*) passed into Spanish *filo* (and *filamento, filar, filete, filigrana*), *fila (*and *desfilar, enfilar),* hilo *(hilar, hilvan), perfil* and *perfilar, vilo,* among others.

Multiple expressions in Spanish, with their correlates in Romance languages, refer to various dimensions of textiles, weaving, and weaving. These include, for example:

- *Trama* as artifice or conspiracy against someone; entanglement of a dramatic work or comedy, "the plot of the story"
- *Urdir* such as, for example, to plot something against someone.
- The use of thread in expressions such as "*tirar del hilo*," "*el hilo de la cuestión*," "*no perder el hilo*," "*el hilo de la vida*," "*no dar puntada sin hilo*," in addition to "*el hilo*," it is said, we can add lost, cut, take up again
- Sayings referring to the knot such as *"nudo del problema," "nudo gordiano*
- Spinning in "*hilar fino*"
- Weaving as "weaving" themes, questions, ideas, concepts; discussing, devising a plan
- References to texture as the arrangement or structure of a work, a body
- Needle, "*encontrar la aguja en el pajar*"
- *A la rueca,* like something that gets twisted.

This list of expressions and uses of language referring to the textile world testifies to an imaginary of the meaning of life, of doing and speaking, as well as the English expression *spinning yarns* as "to tell stories," and before that, rhapsody, as *"to sew songs and stories."*

A recent dimension of textile research is to explore the role of textile technology in the mental universes of the past, in worship,

http://etimologias.dechile.net/; *Online Etymology Dictionary*, accessed March 20, 2022, https://www.etymonline.com/; Julius Pokorny, *Indogermanisches Etymologisches Wörterbuch*, database, accessed 20 March 2022, https://indo-european.info/pokorny-etymological-dictionary/; Perseus Digital Library (Perseus Hopper), accessed March 20, 2022, https://www.perseus.tufts.edu/hopper/, and Edward A. Roberts, *Indo-European Etymological Dictionary of the Spanish* Language (Madrid: Alianza, 1996).

[76] Although the expressions referred to correspond to the Spanish language, there are equivalents in other contemporary Western languages.

rituals, mythology, metaphors, political rhetoric, poetry, and the language of the sciences.[77] Research of this kind concludes that metaphorical and figurative textile expressions are not mere stylistic tools but are rooted in cognitive, terminological and experiential realities of the past and that persist to the present day in language.

Oswald Panagl believes that proof of this can be found in the English vocabulary related to *weaving, spinning, net* that is consolidated in terms and technical expressions of the lexicon of electronic media such as, *for example*, web address, on the web, web based, web browser, web *designer, webcast, web forum, webhead, webmaster, web page, web-site; spin doctor; network, Internet, net speak*.[78] The researcher analyzes the semantic field of weaving to argue that it has not become a dead metaphor but has remained productive from ancient times to the present day.

Following the expressions and words of the current vocabulary referring to the textile world leads to making visible a silent presence as well as active. Metaphors show the way to the imaginary of human communication. An imaginary that has textuality as *hummus*, the intertwined creator of skilled hands, and that refers to life and its care together with speaking, singing, texting, writing, relating to others. Incredibly, those words that took shape and meaning from a set of common practices in the past remain alive, but so hidden and disconnected from their core of meaning to the point of not drawing attention to their explanatory capacity or their heuristic force.

The Greek Case: Textile Imaginary Between Rhetoric, Logos and Myth

Ancient peoples, as noted, offer multiple experiences of weaving practice. Here we will mention, due to their evident influence on European culture and languages, the vocabulary and textile expressions molded in ancient Greece and that have come down to us through myths, philosophy, and art. The use of Greece is intended to draw attention to a history and culture that has been explored until, in some sense, to turn them into Western common sense. Reconsidering this sense helps us to understand the silences and absences of which subaltern, popular and feminine memory is made.

The references to the language of classical Greece,[79] its myths and its philosophy were based on a context of daily life and social organization where textiles occupied a fundamental place. Labor, [80] as Hannah Arendt defines it, is a condition of possibility of the *polis*, of "action", but which remains in the darkness of the *oikos*, the place of inequality and necessity governed by women. Within the *oikos*, *the gynoecium* was an architectural and symbolic space for weaving and weaving. There, to the rhythm of a vertical loom whose warps

[77] Salvatore Gaspa, Cécile Michel and Marie-Louise Nosch, eds., *Textile Terminologies from the Orient to the Mediterranean and Europe, 1000 BC to 1000 AD* (Nebraska: Zea Books Lincoln, 2017).

[78] Panagl Oswald, "Der Text als Gewebe: Lexikalische Studien mi Sinnbezirk von Webstuhl und Kleid," in *Textile Terminologies from the Orient to the Mediterranean and Europe, 1000 BC to 1000 AD*, ed. Salvatore Gaspa, Cécile Michel and Marie-Louise Nosch (Nebraska: Zea Books Lincoln, 2017): 419. Hay que señalar que desde el inglés pasó a las lenguas de un mundo "globalizado".

[79] Cornelius Castoriadis, "Notas sobre algunos medios de la poesía", en *Figuras de lo pensable* (Valencia: Cátedra, 1999): 36-61. The author highlights the "indivisible polysemy of words and grammatical cases" (p. 36) of the classical Greek language, whereby it is sometimes impossible to translate a word with a single meaning.

[80] Hannah Arendt, *La condición humana*, trad. de Ramón Gil Novales (Barcelona: Paidós, 2009): 37-95.

resembled a lyre, the skill of the weaver was expressed with both strength and skill. While weaving, stories and myths were told, and betrayals and values were learned, which founded the mentality of Greek society.

In that world, weaving, its making, its tools, its inputs, were a reference for thinking about the meaning of human life. The weaving of the threads and the rhythms of the loom created the fabrics with which the clothes were made and the meanings of the stories and the human life that was sheltered there were conceived. It was "*a piece of cake*" according to the famous popular expression that coincides with the idea that the shuttle is "a friend of songs".[81] Circe, the Moirae and the Fates also spun and sang,[82] because in classical society the sacred model was not only textile but also linguistic. In it, the young women narrated and fixed them on a textile support, which was the feminine way.[83]

The Greek textile imaginary has been analyzed in relation to communication, [84] highlighting that rhetoric was the theory of communication of the *agora*, public and masculine, while the weaving activity of the *oikos,* domestic and feminine, only has references in myths, they are "women's stories". A situation that would culminate in the Classical period in the opposition between *logos* and *myths*, rational explanation and demonstration as opposed to narration, storytelling, stories.[85]

Aristophanes in his comedy *Lysistrata (411 B.C.) and Plato in* The Politician *(367-361 B.C.) are two cases where the feminine crosses the border into politics. Lysistrata*, a woman, takes the floor to advise how to solve the problems of the lack of agreement of the citizens, "the politicians", and all her recommendation consists of an application of textile tasks.

> LYSISTRATA: First of all, as is done with fleeces, it would be necessary to detach from the city in a bath of water all the filth that it has grasped, remove the knots and eliminate the wicked, by throwing them on a bed of boards, and those who still stick to them and squeeze together to get charges should be torn out with the carder and their heads cut off; then to put the common good will in a basket, mixing all those who have it, not excluding the Metecs and foreigners who love us, and mixing there also those who are indebted to the public treasury, and also, by Zeus, all the cities that have settlers from this land, understanding that they are all to us like tufts of wool scattered on the ground, each one in his own way. And then, taking a thread from all of them, gather them together here and make a huge ball of them and weave from it a cloak for the people.[86]

Cleaning, mixing, gathering, joining, knitting... To create the new, that which protects: "If you had a shred of common sense, according to our wool you would govern everything" without the need for wars or sterile competitions between Greek cities.

[81] Diana Segarra Crespo, "Coser y cantar: a propósito del tejido y la palabra en la cultura clásica", en *Tejer y vestir. De la Antigüedad al Islam*, ed. de Manuela Marín (Madrid: CSIC, 2001): 200.

[82] Ibid., 201.

[83] Ibid., 217.

[84] Daniel H. Cabrera Altieri, "El imaginario textil griego y la comunicación", *RAE-IC, Revista de la Asociación Española de Investigación de la Comunicación* 1, n.º 2 (2014): 65-73.

[85] Hans Georg Gadamer, *Mito y razón*, trad. de José Francisco Zúñiga García (Paidós: Barcelona, 1997): 25.

[86] Aristófanes, *Lisístrata*, trad. de Luis M. Macía Aparicio (Madrid: Ediciones Clásicas, 1993), 575–85.

Plato, in *The Politician*, puts into the mouth of a foreigner a reflection on protection and care from the semantic field of *tekton, téchne and* texere *that* lead him to conclude that "we give the name of dresses to these defenses and clothes that are made by interweaving their own threads; and just as we then called the art of caring for the 'polis' 'politics.'" Policy is presented as care, protection, covering/coverage, art/technique.[87] In classical Greece, weaving could be postulated as a model of political organization, but in a comedy or in the mouth of a foreigner and, in both cases, it was a way of sustaining something that seems improper.

In European culture, the association of weaving with women has remained to this day, although the reality is more complex. Thomas Blisniewski, speaking of weaving as it is represented in European art and analyzed from an evolutionary point of view[88], notes the Jewish and Greco-Roman legacy which, through the Christian tradition, has led Western Europe to consider that a virtuous woman is intimately related to textile work. Western artistic representation repeatedly emphasizes the traditional association of women with the arts of weaving, suggesting passivity and female dependence. However, weaving could also be considered, as has been done, not only as a "symbol of domestic submission" but also "as a productive industry" and perhaps, as a result, "a sign of her feminine virtue".[89]

It is curious that, historically, the feminine seems to find subjection in the textile, while the textile is not necessarily resolved in the world of women. Moreover, the industrial revolution shows how the conversion into industry seems to liberate textiles from the feminine world to be transformed into patriarchal technology and the productive economy of capitalism. This is not the case in Latin America, where textiles, the heart of culture and meaning, continue to participate in what can be understood as communication in its relationship with others, with the land, with tradition and religiosity.[90]

For an Alternative Theory of Communication

What has been said so far justifies postulating an alternative theory of the communicative phenomenon centered on the metaphor of the textile and the imaginary of the fabric as alter/native to media centrism. In its search, three aspects can be taken into account for a conceptualization of communication: as a creative textile intertwining, as care for life and as the weaving of the social fabric.

[87] Dimitri El Murr, "La Symploke Politike: Le paradigma du tissage dans le Politique de Platon, ou les raisons d'un paradigma Arbitraire", *Kairos*, n.º 19 (2002): 49-95. See Cornelius Castoriadis, *Sobre* El Político *de Platón* (México: Fondo de Cultura Económica, 2002): 121-41.

[88] Thomas Blisniewski, *Las mujeres que no pierden el hilo. Retratos de mujeres que hilan, tejen y cosen de Rubens a Hopper* (Madrid: Maeva, 2009): 125-48.

[89] Postrel, *El tejido*, 59.

[90] Véase Adalid Contreras Baspineiro, "Aruskipasipxañanakasakipunirakispawa", en Sierra Caballero y Maldonado Rivera, *Comunicación*, 59-93.

Communication: Crisscross Textile Creator

The anthropologist Cliffort Geertz affirms, following Max Weber, that "man is an animal inserted in webs of meaning that he himself has woven" and continues "I consider that culture is that warp and that the analysis of culture must therefore be not an experimental science in search of laws, but an interpretative science in search of meanings".[91]

Following these guidelines, John B. Thompson in his study on Modernity and the media states that "the media constitute the spinning wheels of the modern world and, by using these media, human beings become fabricators of meanings for their own consumption".[92]

These authors use the textile metaphor as a narrative device, but it can be used as a heuristic instrument. Vilém Flusser, briefly, makes this interpretation by emphasizing the artificial character of communication whose aim is "to make us forget the meaningless context in which we find ourselves completely alone and incommunicado" and continues:

> Human communication weaves a veil of the coded world, a veil of art and science, of philosophy and religion around us and weaves it ever more densely, so that we forget our own loneliness and our death, and the death of those we love. Communication theory deals with the artificial fabric that makes us forget about loneliness.[93]

In several cultures, weaving is metaphorized to understand life and its meaning. The laborious work of making threads, from plants, animals, or insects, and then weaving them on the loom to produce fabric. The human being emerges from the womb joined by a cord and, in the absence of hair, feathers or thick skin, must be sheltered and warmed. In South America, tissue is considered an extension of the mother's womb[94]. Culture with its symbols, myths, narratives, art, images, texts, among others, is constructed and functions as the mother's womb created by the fabric of communication.

Throughout the lives of individuals and the history of society, networks of meanings are built that give meaning to the most diverse questions, starting with their sensations, desires, fears, concerns and hopes, as well as responses to threats, opportunities, competitions or to justify actions. Culture is the fabric produced to shelter and protect oneself from the elements of meaninglessness, while communication is the action by which it is woven. Generative action, "perpetual intertwining,"[95] an ever-present movement, whether latent or visible. The central issue of communication is the production of webs of meaning, conscious or unconscious, implicit, or explicit. Communicating protects, gives ontological security, contact, shelter, skin, warmth. And how do weavers do it? They speak of weaving

[91] Clifford Geertz, *La interpretación de la cultura,* trad. de Alberto L. Bixio (Barcelona: Gedisa, 2003): 20.

[92] John B. Thompson, *Los media y la modernidad: una teoría de los medios de comunicación* (Barcelona: Paidós, 1998): 26.

[93] John B. Thompson, *Los media y la modernidad: una teoría de los medios de comunicación* (Barcelona: Paidós, 1998): 26.

[94] See Fischer, *Urdiendo el tejido social,* 250.

[95] Roland Barthes, *El placer del texto,* trad. de Nicolás Rosa (Buenos Aires: Siglo XXI, 1974): 81.

as a meditative act in which "the mind enters a state that can be described as 'receptive.' You hear much better when you're weaving. You don't question, you don't fight, you don't impede. There's nothing like listening to music and weaving, or talking and weaving, or watching a film and weaving."[96]

That is why they defend knitting as a thought process and not just as a manual skill: "weaving challenges the mind".[97] Communication as listening, reception of the other, recognition and dialogue. Reception as a feminine imaginary, openness to the other, the ability to allow oneself to be fertilized and to embrace the other. Here "reception" is something else, it is preparing the mind and body for what happens. Communication as preparation for the ordinary event, for the passing of time, for the contemplation of life. However, weaving is also what you do while doing other things. In a sense, weaving is distracting, it helps to look in a different way, to concentrate listening on other levels of harmony and to a relaxed dialogue. The body entertained through the hands produces the stillness with which another level of existence begins and develops—to use the metaphor of video games.

[96] Annuska Angulo y Miriam Mabel Martinez, *El mensaje está en el tejido* (México: Futura Textos, 2016): 17.

[97] Postrel, *El tejido*, 92.

Communication: Weaving as Care for Life

"The thread of life" is an ancient expression and is present in very different cultures. The thread of the Greek Moirae and the Latin Fates, spinners of life, is present in other Indo-European cultures such as the Hittite, the Ancient Icelandic, the Baltic, the Slavic and the Albanian, as well as in Indian and Iranian culture[98], in the Inca[99] and Mayan cultures.[100]That thread of life is the thread of meaning, the thread of fate. The thread that is created by twisting is extended, held, and cut. Like luck, like destiny, life hangs in the balance.

In the Latin American Andean communities, it is understood that textiles are like the body and like life, the loom as a mother and the fabric as a child who, like a human being, grows.[101] The tissue is thought to braid the thread of life from the center, the navel, circulating the flow of bodily and spiritual energy from one place of strength to another.[102] To communicate is to protect life, the body, the tissue, and the fabric, the skin, to which Marshall McLuhan and[103] Andrea Saltzman[104] refer from very different angles.

The *gender issue* is very present. The reality is that weaving is not a task only for women, neither in history nor today, but there is something, as Jacques Lacan said, that "woman is primarily a weaver".[105] In his important book on weaving, Postrel argues: "The history of textiles is not a male or female story, nor a European, African, Asian, or American story. It is all of that at the same time, something cumu-

[98] Miguel Ángel Andrés Toledo, *El hilo de la vida y el lazo de la muerte en la tradición indoirania* (Valencia: Intitució Alfons el Magnànim, 2010).

[99] Shyntia Verónica Castañeda Yapura, Renato Cáceres Sáenz y David Peña Soria, *Tejiendo la vida. Los textiles en Q'ero* (Lima: Ministerio de Cultura, 2018).

[100] Manuel Alberto Morales Damián, "La tejedora, la muerte y la vida. Simbolismo maya del trabajo textil en el Códice Tro-Cortesia", *Datatèxtil*, n.º 24 (2011): 76-83, https://raco.cat/index.php/Datatextil/article/view/2753

[101] Denise Y Arnold, Juan de Dios Yapita y Elvira Espejo Ayca, *Hilos sueltos: los Andes desde el textil* (La Paz, Bolivia: ILCA, 2016): 102-23; véase también Luis Ramiro Beltrán et al., *La comunicación*, 225-51.

[102] Arnold, Yapita y Espejo Ayca, *Hilos sueltos*, 55.

[103] Marshall McLuhan, *Comprender los medios de comunicación*, trad. de Patrick Ducher (Madrid: Paidós, 1996): 136ss.

lative and shared: a human story, a tapestry woven with countless vivid threads."[106]

The author has a romantic and "cumulative" view of history. It is true that in ancient times men wove, the industrial textile revolution employed men and women, in war they have all woven clothes, to mention a few. However, that can't obscure what weaving and weaving show. All peoples have had and still have some kind of textile interweaving activity; however, the history of weaving also shows the differences of gender, social classes, colonial strategies, and there are testimonies, in writing and art, of divergences, imbalances, discrepancies and even oppositions and simple domination. The tapestry that makes up the history of weaving has tatters, tears, invisible threads, and threads that cover and conceal, taut threads and others superficial. The harmony and beauty of humanity's fabric also holds injustice, pain and suffering, but if human beings continue to weave, it may be because we continue to seek beauty and hope. Communication, like weaving, has a history that runs parallel to the history of human beings. Communication thus appears as something more and different from coordination and interaction. It is, above all, a recognition of otherness and a search for meaning. And, as such, it is the vital and intertwined matrix that creates and protects life. Communication humanizes, makes humans in a human world.

Weaving has a relationship with life and with the female body that goes far beyond the survey of who does the activity and where. The fabric of the common, the care of others, comes from a fabric that "prolongs the body and also the care, the bond and the bond."[107] The fact that after the Second World War women stopped weaving and sewing in the domestic space, a space essentially unrecognized, caused society to surrender to the market of disposable fashion. For some years now, women from many parts of the world have set up workshops in weaving and sewing, in the creation of social fabric in poor neighborhoods or marginalized communities, and in the (self-)repair of identities and social ties.[108]

Communication: Weaving the Social Fabric

The textuality of communication confronts the instrumental and mediacentric vision with an ontological strategy of production of life in relation to others (ancestors, contemporaries and descendants), with geography (mother earth and all living beings) and with the beliefs and culture of the community. This is evident in the textile activisms and struggles that travel through the cities and countryside throughout Meso and South America with countless community and feminist experiences. Just to mention a few examples. The Chilean

[104] Andrea Saltzman, *La metáfora de la piel. Sobre el diseño de la vestimenta* (Buenos Aires: Paidós, 2019).

[105] Jaques Lacan, *El Seminario.* Libro 10. *La angustia*, trad. de Enric Berenguer (Buenos Aires: Paidós, 2018): 221.

[106] Postrel, *El tejido*, 287.

[107] Mónica Nepote, prólogo "Tejer las redes del cuidado" a *El mensaje está en el tejido*, de Annuska Angulo y Miriam Mabel Martinez (México: Futura Textos, 2016): 7.

[108] There are multiple references that can be found under various names in Internet search engines. The most numerous social networks of knitters is https://www.ravelry.com/.

arpilleras since the seventies of the last century that stood up to the dictatorship of Augusto Pinochet. Chilean women, mothers, wives, daughters and themselves politically persecuted by the repressive regime and who found and updated an ancient Mapuche practice as a mode of existence and resistance.[109] In Peru, the Quipu Project, with the help of digital technologies, has been established as an organization that fights for memory and justice against the forced sterilization carried out in rural and indigenous communities during the government of Alberto Fujimori.[110] In Colombia, textile activism multiplies throughout the territory, building collectivity, promoting social causes and channeling complaints or protests.[111] Something similar is happening in Panama and Guatemala, with the particularity of a search for *sui generis legal protection* of communal intellectual property.[112] The cases are innumerable and in all countries, these few examples show the liveliness of the Latin American textile activism movements that are related to those that have been developing in the cities of Europe or the United States for a long time, within feminist movements such as guerrilla warfare or street art called *yarn bombing, yarn storming, Guerrilla crochet*, *graffiti crochet*, among other names for subversive stitching and textile rebellion.[113]

The different experiences of textile activism show the need to reconsider what a communication practice is. The "models" that communities resort to in order to think about them and the anthropological resources of significant interrelation are not the "media" or their technologies, but ancestral practices that are alive in families and communities. Among them, the use of "textile" names and practices that articulate many popular, indigenous, and peasant social struggles stands out, with special strength in Latin America, and with testimonies in some cities of the Global North. In all of them, the use of the textile imaginary does not accentuate the instruments of communication to promote and publicize the demands for justice and equality, but rather the communal action of braiding interests and fighting for recognition through sitting together. It emphasizes braiding, dialoguing, and producing fabrics without social, gender, or racial differences. Militancies generate a protective, active, vital network that is reinforced in the collaborative tying of companionship, sisterhood, and community.

The invisibility of textiles reduced to a subaltern practice, mostly feminine, popular, poor, "village like" to "poor" peoples, manifests a difficulty in communication research. The difficulty of focusing on phenomena outside or on the margins of the dominant digital technologies of business. In this sense, there are possibilities for an alternative theory, but on the condition that communication studies and history are decolonized in order to discuss the dominant techno

[109] See Gaby Franger, *Arpilleras: cuadros que hablan vida cotidiana y organización de mujeres* (Lima: Movimiento Manuela Ramos, 1988); Marjorie Agosín, *Tapestries of Hope, Threads of Love-the Arpillera Movement in Chile 1974-1994* (Nuevo México: University of New Mexico Press, 1996).

[110] Proyecto Quipu, acceso el 20 de marzo de 2022, https://interactive.quipu-project.com/#/es/quipu/intro

[111] Véase Eliana Sánchez-Aldana, Tania Pérez-Bustos y Alexandra Chocontá-Piraquive, "¿Qué son los activismos textiles?: una mirada desde los estudios feministas a catorce casos bogotanos", *Athenea Digital* 19, n.º 3, (noviembre 2019), e2407, https://doi.org/10.5565/rev/athenea.2407.

[112] See Gemma Celigueta Comerma y Mónica Martínez Mauri, "¿Diseños mediáticos? Investigar sobre activismo indígena en Panamá, Guatemala y el espacio Web 2.0", *Revista Española de Antropología Americana* 50 (2020): 241-52.

[113] See Samantha Close, "Knitting Activism, Knitting Gender, Knitting Race", *International Journal of Communication* 12 (2018): 867–89.

centrism and its teleology. Perhaps in this way, communicational blindness to textiles could be confronted and new genealogies could be reconstructed considering historical textile practices and those of different communities in their own contexts. Anthropology and the history of weaving have already done part of the work, now it's time to listen to it from the popular communication, of Buen Vivir, and decolonial of the South.

Conclusion: The Subterranean Centrality of Textiles

Faced with the question of why textiles as an interpretation of communication, the answer could be provisionally and from the theory of social imaginaries:

- Because references to communication and meaning supported by the vocabulary and metaphor of textiles are omnipresent in Western languages. There is something in this ubiquitous concurrence, an evocation of an ancestral imaginary that is taken for granted, a common sense of the symbolic universe of society.
- Because the frequency of the textile metaphorical cognitive resource in communication theories is also multiple, but it is rarely made explicit. Similar to what happens in the language of everyday life, metaphor is used as a narrative device without further ado.
- Because when delving into the oblivion and absence of textiles, one can trace a negation that goes hand in hand with the concealment of the feminine, the everyday, the domestic, the subaltern, the popular, the artisanal.
- Because when studying the textile imaginary, an understanding of the phenomenon of communication emerges that opens up new horizons of questioning.

And these answers lead to the need to postulate an alter/native theory of communication from a place different from traditional mediacentric communicology. To study communication by fighting against the various forms of denial of the existence of what is different from Western Euro-American culture.

Boaventura de Sousa Santos argues that there are "five main social forms of non-existence produced or legitimized by dominant Eurocentric reason: the ignorant, the residual, the inferior, the local or particular, and the unproductive."[114] The *ignoramivity* produced by logics of knowledge that privilege positive science and the aesthetics of European high culture with its canons of truth and beauty.

[114] Boaventura de Sousa Santos, *Descolonizar el saber, reinventar el poder* (Montevideo: Trilce / Universidad de la República, 2010): 22.

The *backwardness is* the result of the logic of linear time with its ideas of progress, revolution, development and growth. The *inferior* is the product of a logic of social classification, particularly racial and sexual, and the differences and hierarchies that arise from it. A logic of dominant scale that privileges the universal and the global and leaves aside the *particular* and the *local*. And finally, the *unproductive*—sterile or laziness, for example—a consequence of a capitalist productivist logic applied to nature and work. The understanding of communication from the textile imaginary fulfills all these characteristics and forces us to confront socially significant and alternative communication practices to the "media".

This understanding of communication must be oriented, then, towards a communicology from the South, intercultural, decolonial and subaltern, which implies an epistemological consideration of communication and its study, communicology. The textile imaginary deserves to be deepened in order to rethink the appropriations of technologies from the practices and tactics of local, community and popular communication. In this way, what is analyzed in this article (evolutionary linearity, importance of orality, references to traditional textile practices, the relevance of current social and political manifestations that take textiles as a reference) meets the testimony of the reality of Latin American communities. This is where the study of communication can find new paths on the margins of Western modernity.

Bibliography

Abal de Russo, Clara M. *Arte textil. Incaico en ofrendatorios de la alta cordillera andina. Aconcagua, Llullaillaco, Chuscha*. Buenos Aires: CEPPA, 2010.

Agosín, Marjorie. *Tapestries of Hope, Threads of Love-the Arpillera Movement in Chile 1974–1994*. Albuquerque, NM: University of New Mexico Press, 1996.

Albers, Anni. *On Weaving*. Princeton, NJ: Princeton University Press, 2003.

Andrés Toledo, Miguel Ángel. *El hilo de la vida y el lazo de la muerte en la tradición indoirania*. Valencia: Intitució Alfons el Magnànim, 2010.

Angulo, Annuska, y Miriam Mabel Martinez. *El mensaje está en el tejido*. México: Futura Textos, 2016.

Arendt, Hannah. *La condición humana*. Trad. de Ramón Gil Novales. Barcelona: Paidós, 2009.

Aristófanes. *Lisístrata*. Trad. de Luis M. Macía Aparicio. Madrid: Ediciones Clásicas, 1993.

Arnold, Denise Y., Juan de Dios Yapita, y Elvira Espejo Ayca. *Hilos sueltos: los Andes desde el textil*. La Paz, Bolivia: ILCA, 2016.

Barendse, Rita, y Antonio Lobera. *Manual de artesanía textil*. Barcelona: Alta Fulla, 1987.

Barranquero, Alejandro y Juan Ramos Martín. "Luis Ramiro Beltrán and Theorizing Horizontal and Decolonial Communication." In Yoshitaka Miike and Jing Yin, eds. *The Handbook of Global Interventions in Communication Theory*. New York: Routledge, 2022.

Barthes, Roland. *El placer del texto*. Trad. de Nicolás Rosa. Buenos Aires: Siglo XXI, 1974.

Bateson, Gregory. "Una teoría del juego y de la fantasía". En *Pasos hacia una ecología de la mente*. Trad. de Ramón Alcalde. Buenos Aires: Editorial Lohlé-Lumen, 1991..

Beltrán, Luis Ramiro et al. *La comunicación antes de Colón. Tipos y formas en Mesoamérica y los Andes*. La Paz: CIBEC, 2008.

Blisniewski, Thomas. *Las mujeres que no pierden el hilo. Retratos de mujeres que hilan, tejen y cosen de Rubens a Hopper*. Madrid: Maeva, 2009.

Cabrera Altieri, Daniel H., coord. *Cosas confusas. Comprender las tecnologías y la comunicación*. Valencia: Tirant lo Blanch, 2019.

Cabrera Altieri, Daniel H. "El imaginario textil griego y la comunicación". *RAE-IC, Revista de la Asociación Española de Investigación de la Comunicación* 1, n.° 2 (2014): 65–73.

Cabrera Altieri, Daniel H. "Exploraciones sobre el significado de la técnica y la escritura". En *Cosas confusas. Comprender las tecnologías y la comunicación*, editado por Cabrera Altieri, 13–29. Valencia: Tirant lo Blanch, 2019

Cabrera Altieri, Daniel H. *Lo tecnológico y lo imaginario. Las nuevas tecnologías como creencias y esperanzas colectivas*. Buenos Aires: Biblos, 2006.

Cabrera Altieri, Daniel H. "Lo textil como vía para repensar la comunicación/tecnología". En *Cosas confusas. Comprender las tecnologías y la comunicación*, editado por Cabrera Altieri, 35–48. Valencia: Tirant lo Blanch, 2019.

Cabrera Altieri, Daniel H. *Tecnología como ensoñación. Ensayos sobre el imaginario tecnocomunicacional*. Temuco: Ediciones Universidad de la Frontera, 2022. http://bibliotecadigital.ufro.cl/?a=view&item=1962.

Carey, James W. "A Cultural Approach to Communication." In *Communication as Culture: Essays on Media and Society*, 13–36. Boston: Unwin Hyman, 1989.

Castañeda Yapura, Shyntia Verónica, Renato Cáceres Sáenz y David Peña Soria. *Tejiendo la vida. Los textiles en Q'ero*. Lima: Ministerio de Cultura, 2018.

Castells, Manuel. *La sociedad de la información*. Vol. 1, *La sociedad red*. Trad. de Carmen Martínez Gimeno y Jesús Alborés. Madrid: Alianza, 2000.

Castoriadis, Cornelius. *La institución imaginaria de la sociedad*. Trad. de Antoni Vicens y Marco Aurelio Galmarini. Barcelona: Tusquets, 1993.

Castoriadis, Cornelius. "Notas sobre algunos medios de la poesía". En *Figuras de lo pensable*, 36–61. Valencia: Cátedra, 1999.

Castoriadis, Cornelius. *Sobre* El Político *de Platón*. México: Fondo de Cultura Económica, 2002.

Celigueta Comerma, Gemma, y Mónica Martínez Mauri. "¿Diseños mediáticos? Investigar sobre activismo indígena en Panamá, Guatemala y el espacio Web 2.0". *Revista Española de Antropología Americana*, n.° 50 (2020): 241–52.

Close, Samantha. "Knitting Activism, Knitting Gender, Knitting Race." *International Journal of Communication* 12 (2018): 867–89.

Contreras Baspineiro, Adalid. "Aruskipasipxañanakasakipunirakispawa". En *Comunicación, decolonialidad y Buen Vivir*, editado por Francisco Sierra Caballero y Claudio Maldonado Rivera, 59–93. Quito: CIESPAL, 2016.

Craig, Robert T. "Communication Theory as a Field." *Communication Theory* 9, no. 2 (1999): 119–61.

Dader, José Luis. "La evolución de las investigaciones sobre la influencia de los medios y su primera etapa: Teorías del impacto directo." En *Opinión pública y comunicación política*, editado por de Alonso Muñoz et al. Madrid: Eudema, 1990.

Davis, Martin. *La computadora universal. De Leibniz a Turing*. Trad. de Ricardo García Pérez. Barcelona: Debate, 2002.

De Bustos, Eduardo. *La metáfora. Ensayos transdisciplinares*. Madrid: Fondo de Cultura Económica / UNED, 2000.

De Sousa Santos, Boaventura. *Descolonizar el saber, reinventar el poder*. Montevideo: Trilce / Universidad de la República, 2010.

Derrida, Jacques. *De la gramatología*. Trad. de Oscar del Barco y Conrado Ceretti. México: Fondo de Cultura Económica, 2017.

Durand, Gilbert. *Las estructuras antropológicas del imaginario*. Trad. de Víctor Goldstein. México: Fondo de Cultura Económica, 2004.

El Murr, Dimitri. "La Symploke Politike: Le paradigma du tissage dans le Politique de Platon, ou les raisons d'un paradigma Arbitraire". *Kairos*, n.° 19 (2002): 49–95.

Fischer, Eva. *Urdiendo el tejido social. Sociedad y producción textil en los Andes bolivianos*. Trad. de Eva Fischer. Berlín: Lit Verlag, 2008.

Flichy, Patrice. *Lo imaginario de internet*. Trad. de Félix de la Fuente y Mireia de la Fuente Rocafort. Madrid: Tecnos, 2003.

Flórez Miguel, Cirilo. "Retórica, metáfora y concepto en Nietzsche".

Estudios Nietzsche, n.° 4 (2004): 51–67.

Flusser, Vilém. "¿Qué es la comunicación?". Trad. de Victor Silva Echeto. En *Cosas confusas. Comprender las tecnologías y la comunicación*, editado por Cabrera Altieri. Valencia: Tirant lo Blanch, 2019.

Fox, Thomas W. *Maquinaria de tejidos*. Trad. de Francisco Madurga. Barcelona: Bosch, 1919.

Franger, Gaby. *Arpilleras: cuadros que hablan vida cotidiana y organización de mujeres*. Lima: Movimiento Manuela Ramos, 1988.

Fuentes Navarro, Raúl. "Cuatro décadas de internacionalización académica en el campo de estudios de la comunicación en América Latina". *Anuario Electrónico de Estudios en Comunicación Social, Disertaciones* 9, n.° 2 (2016): 8–26. https://doi.org/10.12804/disertaciones.09.02.2016.01

Fuentes Navarro, Raúl. "Latin American Interventions to the Practice and Theory of Communication and Social Development: On the Legacy of Juan Díaz-Bordenave." In Yoshitaka Miike and Jing Yin, eds. *The Handbook of Global Interventions in Communication Theory*. New York: Routledge, 2022.

Gadamer, Hans Georg. *Mito y razón*. Trad. de José Francisco Zúñiga García. Paidós: Barcelona, 1997.

García-Ventura, Agnès. "Imágenes del universo textil en las primeras escrituras". *Datatèxtil*, n.° 14 (2006): 20–31. https://raco.cat/index.php/Datatextil/article/view/278625.

Gaspa, Salvatore, Cécile Michel, and Marie-Louise Nosch, eds. *Textile Terminologies from the Orient to the Mediterranean and Europe, 1000 BC to 1000 AD*. Nebraska: Zea Books Lincoln, 2017.

Geertz, Clifford. *La interpretación de la cultura*. Trad. de Alberto L. Bixio. Barcelona: Gedisa, 2003.

Gleick, James. *La información. Historia y realidad*. Trad. de Juan Rabasseda y Teófilo de Lozoya. Barcelona: Crítica, 2011.

González Tanco, Eva, and Carlos Arcila Calderón. "Buen Vivir as a Critique of Communication for Development." In Yoshitaka Miike and Jing Yin, eds. *The Handbook of Global Interventions in Communication Theory*. New York: Routledge, 2022.

Gürtler, Max y W. Kind. *La industria textil*. Trad. de Ricardo Ferrer. Barcelona: Labor, 1947.

Herkman, Juha. "Current Trends in Media Research." *Nordicom Review* 29, no. 1 (2008): 145–59.

Hofstadter, Douglas y Emmanuel Sander. *La analogía. El motor del pensamiento*. Trad. de Roberto Musa Giuliano. Barcelona: Tusquets, 2018.

Ingold, Tim. *Líneas. Una breve historia*. Trad. de Carlos García Simón. Barcelona: Gedisa, 2015.

Ingold, Tim. "The Textility of Making." *Cambridge Journal of Economics* 34, no. 1 (2010): 91–102. https://doi.org/10.1093/cje/bep042.

Innerarity, Daniel. "La seducción del lenguaje. Nietzsche y la metáfora". *Contrastes: revista internacional de filosofía*, n.º 3 (1998): 123–45.

Jäkel, Olaf, Martin Döring, and Anke Beger. "Science and metaphor: a truly interdisciplinary perspective. The third international metaphorik.de workshop." *Metaphorik.de – online journal on metaphor and metonymy*, no. 26 (2016). http://www.metaphorik.de/fr/journal/26/science-and-metaphor-truly-interdisciplinary-perspective-third-international-metaphorikde-workshop.html.

Jastrow, Robert. *El telar mágico. El cerebro humano y el ordenador*. Trad. de Domingo Santos. Barcelona: Salvat, 1993.

Karam, Tanius. "Tensiones para un giro decolonial en el pensamiento comunicológico. Abriendo la discusión". *Chasqui. Revista Latinoamericana de Comunicación*, n.º 133 (dic. 2016–mar. 2017): 247–64.

Katz, Elihu. "The Two-Step Flow of Communication: An Up-To-Date Report on an Hypothesis." *Political Opinion Quarterly* 21, no. 1 (1957): 61–78. https://doi.org/10.1086/266687.

Krippendorff, Klaus. "Principales metáforas de la comunicación y algunas reflexiones constructivistas acerca de su utilización" en *Construcciones de la experiencia humana II*, editado por Marcelo Pakman. Barcelona: Gedisa, 1997: 107-46.

Lacan, Jaques. *El Seminario.* Libro 10. *La angustia*. Trad. de Enric Berenguer. Buenos Aires: Paidós, 2018.

Lakoff, George y Mark Johnson. *Metáforas de la vida cotidiana*. Trad. de Carmen González Marín. Madrid: Cátedra, 2009.

Lancien, Thierry et al. "La recherche en communication en France. Tendences et carences". *Recherche & communication*, dirigido por Thierry Lancien. *MEI (Médiation et Information)*, n.° 14. Saint-Denis: L'Harmattan, 2001.

Langlois, Ganaele. "Distributed Intelligence: Silk Weaving and the Jacquard Mechanism." *Canadian Journal of Communication* 44, no. 4 (2019): 555–66. https://doi.org/10.22230/cjc.2019v44n4a3723.

Lazarsfeld, Paul F., y Elihu Katz. *La influencia personal: el individuo en el proceso de comunicación de masas*. Barcelona: Hispano Europea, 1979.

Lizcano, Emmanuel. *Metáforas que nos piensan*. Madrid: Ediciones Bajo Cero / Traficantes de Sueños, 2014.

Magallanes Blanco, Claudia, y José Manuel Ramos Rodríguez, coords. *Miradas propias. Pueblos indígenas, comunicación y medios en la sociedad global*. Quito: CIESPAL, 2016.

Marques de Melo, José. *Pensamiento comunicacional latinoamericano.*

Entre el saber y el poder. Sevilla: Comunicación Social, 2009.
Mattelart, Armand. *La comunicación-mundo. Historia de las ideas y de las estrategias*. Trad. de Gilles Multigner. México: Siglo XXI, 1997.
Mattelart, Armand. *La invención de la comunicación*. Trad. de Gilles Multigner. Barcelona: Bosch, 1995.
McCombs, Maxwell E., and Donald L. Shaw. "The Agenda-Setting Function of Mass Media." *Public Opinion Quarterly* 36, no. 2 (1972): 176–87.
McLuhan, Marshall. *Comprender los medios de comunicación*. Trad. de Patrick Ducher. Madrid: Paidós, 1996.
McLuhan, Marshall. *La galaxia Gutenberg. Génesis del "Homo typographicus"*. Trad. de Juan Novella. Barcelona: Círculo de Lectores, 1993.
Meunier, Jean Pierre. "Las metáforas de comunicación como metáforas que cobran realidad". *Signo y Pensamiento* 16, n.° 30 (1997): 115–28. https://revistas.javeriana.edu.co/index.php/signoypensamiento/article/view/5537.
Miike, Yoshitaka and Jing Yin, eds. *The Handbook of Global Interventions in Communication Theory*. New York: Routledge, 2022.
Morales Damián, Manuel Alberto. "La tejedora, la muerte y la vida. Simbolismo maya del trabajo textil en el Códice Tro-Cortesia". *Datatèxtil*, n.° 24 (2011): 76–83. https://raco.cat/index.php/Datatextil/article/view/275363.
Mosco, Vincent. *La nube. Big Data en un mundo turbulento*. Barcelona: Intervención cultural / Biblioteca Buridán, 2014.
Muñoz-Torres, Juan Ramón. "Abuso de la metáfora y laxitud conceptual en comunicación". *Mediaciones Sociales. Revista de Ciencias Sociales y de la Comunicación*, n.° 11 (2012): 3–27. http://dx.doi.org/10.5209/rev_MESO.2012.v11.41267.
Musso, Pierre. "Génesis y crítica de la noción de red", trad. de Jorge Márquez Valderrama, *Ciencias Sociales y Educación* 2, n.° 3 (enero-junio 2013): 201–24.
Noelle-Neumann, Elizabeth. *La espiral del silencio*. Trad. de Javier Ruíz Calderón. Barcelona: Paidós, 2003.
Ong, Walter. *Oralidad y escritura. Tecnologías de la palabra*. Trad. de Angélica Scherp. México: Fondo de Cultura Económica, 2011.
Panagl, Oswald. "Der Text als Gewebe: Lexikalische Studien mi Sinnbezirk von Webstuhl und Kleid." In *Textile Terminologies from the Orient to the Mediterranean and Europe, 1000 BC to 1000 AD*, edited by Salvatore Gaspa, Cécile Michel, and Marie-Louise Nosch. Nebraska: Zea Books Lincoln, 2017.
Papalini, Vanina. "La comunicación según las metáforas oceánicas". *Razón y Palabra*, n.° 78 (noviembre 2011-enero 2012). http://www.razonypalabra.org.mx/varia/N78/1a%20parte/02_Papalini_

V78.pdf.

Pérez Álvarez, Federico, y Carmen Timoneda Gallart. "El poder de la metáfora en la comunicación humana: ¿Qué hay de cierto? La metáfora en la teoría y la práctica perspectiva en neurociencia". *International Journal of Developmental and Educational Psychology* 6, no. 1 (2014): 493–500. https://doi.org/10.17060/ijodaep.2014.n1.v6.769.

Peters, John Durham. *Hablar al aire. Una historia de la idea de comunicación*. Trad. de José María Ímaz. México: Fondo de Cultura Económica, 2014.

Peters, John Durham. *The Marvelous Clouds. Toward a Philosophy of Elemental Media*. Chicago: University of Chicago Press, 2015.

Pintos, Juan Luis. "Comunicación, construcción de la realidad e imaginarios sociales". *Utopía y Praxis Latinoamericana* 10, n.º 29 (2005): 37–65.

Plant, Sadie. *Ceros + unos. Mujeres digitales + la nueva cultura*. Trad. de Eduardo Urios. Barcelona: Destino, 1998.

Postrel, Virginia. *El tejido de la civilización. Cómo los textiles dieron forma al mundo*. Trad. de Lorenzo Luengo. Madrid: Siruela, 2020.

Reddy, Michael. "The Conduit Metaphor: A Case of Frame Conflict in our Language about Language." In *Metaphor and Thought*, edited by Eden A. Ortony, 164–201. Cambridge: Cambridge University Press, 1993.

Rivadulla, Andrés. "Metáforas y modelos en ciencia y filosofía". *Revista de Filosofía* 31, n.° 2 (2006): 189–202.

Roberts, Edward A. *Diccionario etimológico indoeuropeo de la lengua española*. Madrid: Alianza, 1996.

Rodríguez, Pablo. *Historia de la información. Del nacimiento de la estadística y la matemática moderna a los medios masivos y las comunidades virtuales*. Buenos Aires: Capital Intelectual, 2012.

Saltzman, Andrea. *La metáfora de la piel. Sobre el diseño de la vestimenta*. Buenos Aires: Paidós, 2019.

Sánchez-Aldana, Eliana, Tania Pérez-Bustos, y Alexandra Chocontá-Piraquive. "¿Qué son los activismos textiles?: una mirada desde los estudios feministas a catorce casos bogotanos". *Athenea Digital* 19, n.° 3 (noviembre 2019): e2407. https://doi.org/10.5565/rev/athenea.2407.

Schmucler, Héctor. "La investigación: un proyecto comunicación/cultura." En *Memoria de la Comunicación*, 145–51. Buenos Aires: Biblos, 1997.

Scolari, Carlos A. "Ecología de los medios: de la metáfora a la teoría (y más allá)". En *Ecología de los medios: entornos, evoluciones e interpretaciones*, 15–42. Gedisa: Barcelona, 2015.

Segarra Crespo, Diana. "Coser y cantar: a propósito del tejido y la

palabra en la cultura clásica", en *Tejer y vestir. De la Antigüedad al Islam*, editado por Manuela Marín. Madrid: CSIC, 2001.

Sfez, Lucien. *Crítica de la comunicación*. Trad. de Aníbal C. Leal. Buenos Aires: Amorrortu, 1995..

Sierra Caballero, Francisco, y Claudio Maldonado Rivera, coords. *Comunicación, decolonialidad y Buen Vivir*. Quito: CIESPAL, 2016.

Taylor, Cynthia, and Bryan M. Dewsbury. "On the Problem and Promise of Metaphor Use in Science and Science." *Journal of Microbiology & Biology Education* 19, no. 1 (2018). https://doi.org/10.1128/jmbe.v19i1.1538.

Thompson, John B. *Los media y la modernidad: una teoría de los medios de comunicación*. Barcelona: Paidós, 1998.

Torrico Villanueva, Erick R. "Decolonizar la comunicación". En *Comunicación, decolonialidad y Buen Vivir*, editado por Francisco Sierra Caballero y Claudio Maldonado Rivera, 95-112. Quito: CIESPAL, 2016.

Torrico Villanueva, Erick R. *La comunicación pensada desde América Latina (1960–2009)*. Salamanca: Comunicación Social, 2016.

Winkin, Ives. "El telégrafo y la orquesta". En *La nueva comunicación*, de Gregory Bateson et al. Trad. de Jorge Fibla. Barcelona: Kairós, 1984: 11–25.

Wunenburger, Jean-Jacques. *La vida de las imágenes*. Trad. de Hugo Francisco Bauzá. Buenos Aires: UNSAM, 2005.