



Information Seeking through Information Communication Media from the Olden Days to Internet Dominated Era : a theoretical approach

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Abstract

The study investigates the evolution of information seeking practices across different communication media from ancient times to the internet-dominated era. It explores the cognitive process of information need, which varies across individuals, locations, and contexts. Beginning with prehistoric verbal communication and cave paintings, the study traces the development of communication through symbols, letters, telegraph, telephone, and eventually the internet and World Wide Web (WWW). Utilising theoretical frameworks, the research delves into the concept of information seeking, elucidating its role in changing knowledge states and problem-solving. Notably, it examines the significance of signs and symbols in communication, analysing their evolution and impact on information dissemination. Through a comprehensive literature review and theoretical analysis, the study uncovers insights into the modes, types, materials, and reflections of information through various communication media. Findings highlight the continuity in communication patterns despite technological advancements, emphasising the fundamental nature of human information-seeking behaviour. The study concludes that while contemporary communication mediums offer unprecedented connectivity and convenience, they are built upon age-old communication principles, suggesting a timeless pattern in information-seeking behaviour.

Keywords: Information communication, Internet-dominated era, Information seeking Olden days, Prehistoric period

1. Introduction

Need for Information is a cognitive process that differs from person to person, place to place and situation to situation. The necessity of Information is for all the time. This time ranges from prehistoric times to the present time of the Internet. Verbal communication was the only means of communication in the prehistoric period, and various gestures and body language were used to meet the need for Information. Signs and symbols were drawn on cave walls and rocks to cater to the required Information. But with the advancement of civilization, everything

has changed. Signs and symbols are not exceptions to this changing environment. A later letter, the telegraph, and the telephone were invented to communicate among human beings along with the verbal mode of communication. After the 1960s, it changed drastically with the advent of the internet and Information Communication Technology (ICT). The dependency on ICT is increasing daily in every sphere of human life. Social media like Facebook, Twitter, etc., have almost grasped the present society, especially the screen-glued Gen-Y. The current research deals with the following items:



- Use of media for communication;
- Use of signs and symbols for communication;
- Materials used for communication media and
- Dissemination of information through signs and symbols.

1.1 *Definition analysis*

1.1.1 *Olden days:*

It refers to the prehistoric period that began with the appearance of human beings and ended with the invention of writing. This is the time of our first ancestors. Hunting and gathering were the only means of life at this time. Verbal communication was the only medium of information communication (Goswami, 2013).

1.1.2 *Internet-dominated era:*

It started with the invention of the internet in 1960. It is continuing. At this time, everything is done with the help of ICT. Whole societal development is based on the internet and ICT. Almost everyone has become screen-glued.

1.1.3 *Information seeking:*

The process involved in changing one's (human being's) state of knowledge is called information seeking. It's a kind of high-level learning and problem-solving cognitive process. In this process, users are supposed to acquire new knowledge and skills through various types of information sources and tools (Tubachi, n.d.). According to Wilson (2000), information seeking is defined as 'the purposive seeing for Information as a consequence of a need to satisfy some goal (Tubachi, n.d.). Marchionini (1995) defines information seeking as "a process in which humans purposefully engage to change their state of knowledge and which is closely related to learning and problem solving".

Johnson (1997) defined information seeking as "purposive acquisition of information from selected information careers". Particular roles and their related tasks also result in shaping the information seeking behaviour which is in turn affected by factors such as sources, individual characteristics of the user and the environment surrounding the user (Biswas, Chakrabarti, & Das Biswas, 2013).

1.1.4 *Information communication:*

The word 'Communication' is derived from the Latin word 'Communis', which means 'sharing'. Communication explores all methods used by human beings to express or convey thoughts or feelings. When living beings communicate with someone, they establish a certain degree of commonness with the persons they communicate with (IGNOU).

2. **Literature review**

In recent literature, Barnes (2017) explores the evolving role of symbols in information communication and technology advancement, emphasising their multifaceted functions in various domains such as entertainment, journalism, and branding. Clara and Swasty (2017) highlight the significance of pictograms as efficient visual communication tools, particularly in museum signage, demonstrating their effectiveness in conveying information without reliance on textual elements. Phare, Gu, Williams, and Loughland (2013) delve into the concept of collaborative design and semiotics, underscoring the potential of signs to foster collective intelligence and generate innovative ideas. St.-Pauls (n.d.) discusses the fundamental role of signs and symbols in graphic communication, emphasising their universality across different languages. Additionally, Hazra (Feb. 2020) examines information-seeking patterns from prehistoric to modern times, identifying six fundamental types of information needs and highlighting



the enduring nature of information-seeking behaviour across ages.

3. Significance of the study

The significance of the study lies in its exploration of the evolution of information seeking practices across different communication media from ancient times to the internet-dominated era. By tracing the cognitive process of information need and the role of signs and symbols in communication, the research sheds light on how human beings have sought and disseminated information over time. Through a comprehensive analysis, the study highlights the continuity in communication patterns despite technological advancements, emphasising the enduring nature of human information-seeking behaviour. This insight into historical and contemporary communication modes provides valuable understanding for scholars and practitioners alike, emphasising the timeless pattern in information-seeking behaviour across ages.

4. Objectives

- i. To determine the mode of communication media
- ii. To ascertain the types of signs and symbols used for communication media from the olden days to the present era

- iii. To narrate the materials used for communication media and what it means by various signs and symbols for communication from past to present.

5. Methodology

A format was framed and filled out by the researcher carefully. Inputs were given to the said format related to the use of media for communication, the use of signs and symbols for communication, materials used for communication media, and the reflection of information through signs and symbols. Information regarding the olden days and for the rest of the part of the inquiry was collected through various sources, i.e., from printed books, e-books, webs, journals/ articles and the discussion among distinguished professors from the Department of History, Vivekananda Mahavidyalaya, Burdwan. The acquired information is represented in tabular form and analysed systematically to reach the outcome(s) of the research.

6. Analysis

Media plays a vital role in communication and information dissemination all the time. Different communication media were used at other times for communication. The following table 1 is about the use of media for communication.

**Table 1: Use of media for communication**

Media	Year of origin	Special Characteristics	Available Information
Cave paintings / Pictography	Started with the appearance of human beings (about 5 million years ago)	Events and ideas are recorded through drawings. The drawings were painted in the colour of fruit juice and berries and coloured minerals.	Information about hunting, fishing, agriculture, Social Structure
Telegram	1850	Telegram for inland communication and Cablegram for foreign communication. It is used for short message sending. The message must be ended within eight words.	All types of urgent Information are available in a concise form.
Letter	1858	Written Messages are sent through personal messengers, private messengers, and letter carriers after Post services start.	All types of Information
Telephone	1876	Conversion of voices into an electronic signal	'Dial-a fact' provides the required Information
Internet	1960	Network of networks. Concisely defined as "Physical network formed of various networks globally connecting countless other devices that form a huge network of systems"	Covers the whole universe
www (world wide web)	1980	"Global network of computers" or Collection of websites and web pages stored in web servers and connected through the Internet.	Covers the whole universe

Cave paintings / Pictography: Here, ideas are transmitted through drawings (Prehistoric, n.d.)

Telegram: Electrical signal converted into writing on paper and delivered to the recipient (wiki, n.d.)

Letter: "a written, typed, or printed communication, sent in an envelope by post or messenger" (Google, n.d.)

Telephone: Human voices are converted into electronic signals and transmitted via cable between two persons (wiki, n.d.)

Internet: It is the interconnection of computer networks using TCP/IP protocol

www: world wide web (wiki, n.d.)

Table 1 reflects the use of communication media at various times, starting from the appearance of human beings on this globe to the invention of www. Cave paintings/photography is the first medium for communication, followed by telegram, letters, telephone, internet and www. It also reveals the characteristics of individual media and information available for meeting needs depending on a particular available medium.

It is quite impossible to narrate anything without highlighting the use of signs and symbols for communication, tools for writing, means for communication, and message couriers. The following table 2 deals with the above-noted matter.

**Table 2: Use of signs and symbols for communication, tools for writing, means for communication and message courier**

Particulars	Prehistoric period / Before the invention of writing	After the invention of writing	After the invention of the Telephone, the Internet and www
Signs and symbols	Signal fires, Smoke, Totems, Horns, Drums, Banners, Polished Swords, Mirror-like copper disks, Flashlight, Messengers with verbal messages,	Written communication was already started	Smart signals are used
Tools for writing	The writing was yet to be invented	Eggshells, Clay tablets, Vellum, Parchment, Paper, Type Writer	Keyboard and other digital devices
Means of communication	Speech, Hand gestures, Body Language, Facial Expression	Letter, Telegraph	Text messages, e-mail, chats, video calling, video conferencing
Messenger	there were indications for information dissemination through drawings and paintings	Pigeon, Messengers on foot, Messengers on horseback like Angros in Persia, Tamuku	In case of telephonic communication wires are used or wireless protocol is also used such as WAP protocol. In current stage Internet and www concepts are same and used through wire and wireless protocols too

Angros = Angros are messengers who can transmit information from a distance of 1677 miles in just seven days on horseback and ninety days on foot.

Tamuku = A person with a dappu to convey important messages among the villagers.

Dappu = A kind of drum.

Table 2 delineates three temporal dimensions: the Prehistoric period before writing, after the advent of writing, and post-invention of the telephone, internet, and WWW. Primitive communication relied on signals like fire, smoke, and drums before written language emerged, while written communication began thereafter. The introduction of the telephone, internet, and

WWW revolutionised information seeking, facilitating intelligent signal usage. Writing materials transitioned from eggshells and clay tablets to digital devices in the digital era, while communication mediums evolved from speech and gestures to letters, telegraphs, and contemporary modes like text messages and video calls. Pre-writing era lacked formal message couriers but utilised pigeons, foot messengers, and horseback messengers, contrasting with modern reliance on wires, air, and electronic channels for message delivery

It is the instinct inquisitiveness of all human beings to know the component(s) used for preparing any material thing. The following table 3 is the representation of the materials used for communication media.

**Table 3: Materials used for communication media**



Media	Materials used
Cave paintings / Pictography	Stone, Rock for engraving
Telegram	Paper and electrical signal
Letter	Metal, lead, wax-coated wooden tablets, pottery fragments, animal skin and papyrus and in the contemporary period, paper is mostly used
Telephone	Cable wire, dial box and mouthpiece
Internet	Computer, Internet Protocol
www	Web and spectrum

The above table 3 describes the varieties of materials used to make different communication media. In the primitive age, stones and rocks were used for engraving as pictography. Later, paper and electronic signals were used for telegrams. It is seen from the above table that "Letters" may be made of metal, lead, wax-coated wooden tablets, pottery fragments, animal skin, papyrus, paper. Cable wire, dial box and

mouthpieces were used to prepare the telephone. Computer and internet protocol are necessary for the Internet. WWW (World Wide Web) is based on web and spectrum.

Signs and symbols always signify some information, whether it is in the ancient period or the era of web domination. The following table 4 shows the manifestation of the dissemination of Information through signs and symbols.

Table 4: Dissemination of information through signs and symbols

Ancient Period		The Era of Internet Domination		Remarks
Signal used	Reflection of Information	Signal used	Reflection of Information	
Fire	Long distances, people could communicate with fires. If there were a threat of invasion, the defenders would make fires on the top of hills or mountains.	Open blue circle 	The message is ready for sending.	Both are the indication of long distance.
Drums, Smoke	Signal danger and a call to arms		No entry	Almost the same information signifier








Ancient Period		The Era of Internet Domination		Remarks
Signal used	Reflection of Information	Signal used	Reflection of Information	
Totems	Spiritual significance and emotions		Emotions	This is the manifestation of equivalent Information
Horns	For Alarm		Failure in message-sending	Both are same
Banners	Rightness		Gender specification	Rightness is reflected in both cases
Polished Sword & Mirror-like copper disk	Strategic positional communication		The message is ready for sending.	Almost same
Flash of light	Predetermined positive instruction		Message has been delivered successfully.	Indication of positivity

Table 4 represents the type of signal/symbols used in the ancient period and the era of internet domination. It is noticed that different symbols/signs were used to indicate different meanings in the ancient era as well as the era of air (era of the web) domination. In the ancient period, fire means long-distance communication. Drums and smoke were dangerous. Totems were used for spiritual significance. For alarming

something, horns were used. Rightness was signified by banners. A polished sword and flash of light signify strategic position and predetermined positive instruction, respectively.

In the present era, signals/symbols like Open blue circle, Open blue circle with a checkmark, filled blue circle with a checkmark, Red Triangle, Emoji, etc., are



used to disseminate information. The signs and symbols used for disseminating in the present and the olden days are almost the same in every respect.

7. Discussion

The findings of the research have revealed several key insights: Firstly, communication media evolved from cave paintings and pictography in the primitive age to modern mediums such as telegram, letters, telephone, internet, and WWW. Secondly, before the advent of writing, communication relied on symbols like smoke, fire, drums, and horns, which transitioned with the invention of writing and the internet. Thirdly, writing materials progressed from eggshells and clay tablets to digital keyboards. Fourthly, the means of communication transformed from speech and gestures to written forms like letters, telegrams, and contemporary methods such as internet-based communication. Additionally, telegram served as a vital tool for both domestic and international communication. Moreover, pigeons historically played a significant role as message couriers. Lastly, contemporary communication still utilises symbols and signs for conveying information, such as the "open blue circle" indicating a message ready for sending, reminiscent of ancient communication practices.

8. Conclusion

This study provides a comprehensive examination of the evolution of information seeking practices from ancient times to the internet-dominated era, offering valuable insights into the cognitive processes underlying human communication and knowledge acquisition. The research illuminates how communication media have transformed over millennia, from primitive cave paintings and verbal gestures to modern mediums like telegrams, letters, telephones,

and the internet. Significantly, it underscores the enduring significance of signs and symbols in communication, tracing their evolution and impact across different historical periods. Moreover, the study highlights the continuity in communication patterns despite technological advancements, emphasising the timeless nature of human information-seeking behaviour. While contemporary communication mediums offer unprecedented connectivity and convenience, they are rooted in age-old communication principles, suggesting a fundamental and enduring pattern in the human quest for information. Ultimately, this research contributes to a deeper understanding of the complex interplay between communication technologies, human cognition, and societal development, shedding light on the enduring dynamics of information seeking across ages.

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