

Information literacy for community health agent training in Brazil: a proposal for mediation based on the extensive and collaborative models

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Abstract

This article presents methodology based on the extensive communication model (SIMEÃO, 2006) and Alfin, an acronym published by Unesco to offer a concept for the process of information literacy acquisition (*information literacy*), in research applied to the communication context of information on health in Brazil. This paper assesses the mediation of Community Health Agents (ACS) in their work in the Brazilian Unified Health System (SUS) through the development of Alfin training workshops. In testing whether the proposal is applicable in a professional workspace which is more open, with more informal communication relationships, the research group observes the Community Health Agent (ACS), a supporting professional and the main mediator in the Family Health Care Program, and his/her performance as a communicator. The hypothesis is based on the following proposition: once trained by specialists in the fields of technology, information and communication, the ACS will be able to act as mediators with a broader view in terms of communication. The study also aims to identify the sources of information used by the ACS and the perspectives of expanding such sources after training in the Alfin workshops. The content produced in the workshops will also be a subject of study and of theory and methodology discussions; this contributes to broadening the proposition of the extensive communication model.

Keywords

extensive communication; information literacy; mediation; subjects of learning; community health agents

Introduction On extensive communication

In order to consolidate the concept of extensive communication and verify the relevance of indicators proposed in the model for the communication of health

information, it is necessary to establish their appropriate dimension in a more informal communication environment. The idea is not to reduce the application of the indicators to an observation of structured products, as was made in the first investigations of

the model in a scientific communication environment. Now the aim is to broaden its use to include information products and services in a strategic way. One works from the assumption that information can be constructed based on the conceptual approach, making the actions of projects and programs with specific goals more dynamic. In this case, working in a professional and education environment with collective health professionals.

The movement for the integration between disciplines is characteristic of modern science. It is strongly supported by communication technology resources with a demand for information products and services of a more informal nature. It is a communication paradigm with mediation actions integrated through more open electronic systems. Because of this expansion movement, science in the 21st century tends to be closer to the social issues in a more propositive way, integrating itself to the citizens' routine.

This scenario of network integration in a global action space, or at least its possibility, is not a recent discussion. It has been foreseen by visionary authors, such as Vannevar Bush and Marshal McLuhan. The theorist of mass media and forerunner of media studies, for example, predicted the arrival of the global village of which we are witnesses today with the Internet. McLuhan's interest was not limited to the ideological effects of the media, but to its interference and interaction with human sensations. "Understanding Media", the title of his most widely known thesis, or "technical prosthetics", are some of the author's expressions to signal the influence of the media on perception and mediation. Vannevar Bush, on the other hand, an American engineer and scientist, stood out for his work on analog computing. The idea of Memex (Memory Extension) - seen as a pioneering concept of the *World Wide Web*, seemed to foresee the possibility of hypertext operations integrating human knowledge.

Origins of the concept of extensive communication

After the relationship between technological expansion and integration of knowledge in today's science was verified, we sought a consistent explanation for this global movement in the works of Roger Chartier, professor and director of the Center for Historical Research at the *Ecole des Hautes Etudes* in Social Sciences, in France. This would lead to a historical reference for the thesis on Extensive Communication (SIMEÃO, 2006). Chartier's work concentrates on the importance of reading in modern Europe, exploring the relationship between the text and the reader in a scenario marked by permanent evolution of instruments of communication and mediation technology. In "Pratiques de la lecture" (CHARTIER, 1996), a book edited by Chartier and with contributions by Guglielmo Cavallo, Pierre Bourdieu, François Bresson, Robert Darnton, Daniel Fabre, Jean-Marie Goulemot, Jean Hébrard, Louis Marin and Daniel Roche, scholars who study different subjects

try to clarify the models and effects, the history and contemporary situation through a cultural practice which is the basis that supports all human knowledge, i.e. reading.

Reading is understood as an act which arises from mediation, the act of deciphering signs that translate a language. It is not only about understanding (reading) the world through an author's (or authors') eyes, but also about capturing that language which is expressed through signs (in writing) and that can make the communicative act flow. Reading also as a dynamic learning process, a process of mediation constructed by the definition of patterns and codes and also, as pointed out by Chartier, an intimate relationship which is often established between the lonely reader and a space open for imagination (as in the book), between readers and their daily newspaper (with its modern *online* versions broadening their creative capacity). This reader's intimacy is now part of a "virtual socialization" space in which Internet users and their peers share experiences and knowledge beyond conventional spaces.

In observing ways of reading appropriation in 18th century Germany and 19th century England, Chartier (1996) realizes the transition from "intensive" reading to a reading he calls "extensive"; thus, he infers that the absorption of content can be made through two distinct forms of appropriation. According to the author, there is some traditionalism in the first which imposes rules to reading and norms to writing. The reader is confronted with a restricted number of possibilities which perpetuate the same texts and the same formats, which always offer identical references; and thus the contents are more recognized than read. This form of reading causes intimacy with the reader, and it is also the scenario for more conventional and traditional communication relationships.

Between 1750 and 1850 the historian detects a new manner of reading which will, gradually and in different ways, gain recognition in the face of traditional communication procedures (more intensive). It is a set of procedures which stimulates a more superficial reading of texts that also translates less investment in the production of books and care in their illustration. This leads to the production of countless copies, read individually in a disposable way, to their intense reproduction and making their dissemination and popularization easier. This expansion was followed by progress in the publishing industry and brought along the possibility of wider access to human knowledge and its large scale reproduction. Such extensive action does aim at a repertoire of multiple documents and applies to a larger number of people, expands the mediation ways and surpasses the traditional references of each area of knowledge. However, it also promotes reading in other supports, propagating ideas and capturing movements in a permanent exchange of contents and forms which reproduce the interests of interpreting communities.

Extensive communication and its indicators: interactivity, hypertextuality, and hypermediation

From the definition of the three main indicators (**interactivity, hypertextuality, and hypermediation**), it was possible to assess common and individual aspects of web documents' formats (Simeão, 2006) and then create a method of analysis and verification of the extensive communication model. In order to explain momentarily the possibilities of identification of extensive communication processes, and also to test the implementation of projects based on this model, a fourth indicator was included: the **context**.

Box 1 - Extensive and intensive communication (comparative box).

Extensive communication	Intensive communication
Traditionalism	Informality
Strict norms	Flexible rules
Restrictions to reading and editing	Expanded reading, interactive editing
Promotes recognition	Promotes the new, the unexpected
Identical references	Different references
Slow, intimate reading	Fast and superficial reading
Vertical configuration	Horizontal configuration

Source: SIMEÃO, 2006.

The indicators were constructed around the main characteristics presented in the concept of extensive communication. In other words, they should promote informality, the use of flexible rules, expanded reading and interactive editing. Encouragement to using different references, of new content, with formats which induce a fast and superficial reading, with a horizontal configuration which is open to the participation of several groups, with the formation of networks.

Interactivity, hypertextuality and hypermediation are the indicators for information formats which are used to identify in which level of implementation the information products and services would reach the possibility of more extensive and open action. The first indicator would be more closely connected to the products and services which include the users and groups of people; the next two would be connected to the practice of formatting and interpreting contents. All of them need the "complementary contextual analysis" (fourth indicator), for this method can be applied both to analyze information products and services, as well as to offer a policy to that end.

Interactivity is understood as the possibility of dialog between the user (interpreter) and the information system. It explains and signposts the relationship between the users, through the system, with tools that promote temporary or permanent contact between

groups, with the purpose of bringing them closer and integrating them. It can also include contents on the system and its use, its products and services, aiming at customer service. The main feature of this indicator is the system's interaction with its users, whether they are emitters or receptors. From Morin's complex perspective, we draw "information as an instrument for dialog". Regulation itself takes place through dialog, and dialog *allows* assuming rationally the association of contradictory notions in order to conceive the same complex phenomenon (MORIN, 2007), that is, the author supports the idea that antagonisms can be stimulating and regulatory.

Hypertextuality is the indicator of connections between several different content and the multiple transdisciplinary combinations. It is defined by the *links* which are established between people through integrated forms of content communication in modern systems, especially those which use the operation logic of hypertext (conceptual and not only displacement). The concept analyzed in that indicator attempts to search for connections not from people, as pointed out more precisely by the indicator interactivity and, more appropriately, Mendonça's (2007) "all-all" communication model, but from the discovery of countless possibilities for connection between distinct themes.

There is always the possibility of affinity between discourses from distinct areas. The process of building themes from content arrived at from mediation can determine possible integration points for subjects. Morin uses the same reasoning in assessing information as a complexity instrument, highlighting the need for a method which unites what is separate, confronts what is uncertain and overcomes logic shortcomings:

(...) What we have tried to find, and we believe we have, was this place of intersection for fundamental research, a theoretical / methodological / epistemological set, coherent and open at the same time. (MORIN, 2007, p.49)

According to this author, science (*scienza nuova*) could not be bound by concepts, but it should create a path between them, ensuring that the world would never be incarcerated in discourse.

Hypermediation is the indicator which identifies in information products and services ways to overcome conventional dialog procedures. It is the combination of information in its multiple dimensions: texts, video and audio are used to construct content in a discursive, non-linear logic which obeys the user's creation commands, with multiple resources. Even when there are no limits (theme-wise), the permanence of dialog and its increasing possibility of expansion must be respected. At this moment, the aesthetic concern is recovered. Its perfection lies in dialogical construction in harmonious formats, such as art expressions, seeking the perfection in form which maintains balance in dialog. Hypermediation differs from the previous indicators because it concentrates on the capacity of promoting the construction of content based on textual and multidimensional goals.

Some support the view that the combination of the three features of extensive communication creates a

mechanism which parts ways with the traditional model of communication and organization of library collections into information systems. In the face of extensive communicative action, it will be up to information sciences to grasp conflicts in the communication between emitters and receptors. The continuous work of production, organization, retrieval and formatting of discourse in the *web* will lead interpreters to new rules, which also cannot be seen as a finished product or finished work, since it pertains an open and dynamic process.

The extensive communication is a process which moves forward with the instrumentalization of open, cooperative and data sharing systems. It is mediation for integration with a horizontal flow and that aims to solve a problem which afflicts interpreting and content producing communities strongly influenced by technical apparatuses. It is communication without predefined rules, without a fixed pattern, without boundaries. It is the interaction between emitters and receptors with a hypertextual logic, its goals momentary and objective, however ephemeral, without stock and constantly changing. Momentary and precise is also a transitory mediation. It is an intertwining of people and ideas into complex systems which attempt to simultaneously meet the demands of its users, it has an information pattern that is qualitatively different and operationally reliant on computing technology (DIZARD, 2000).

The computer and the virtual networks have become common mediation tools: they are fast, they allow the exchange of a large amount of data in a global and local scale. By observing the current moment as virtual networks arise, one can notice that communication technology is the model for almost all forms of mediation and production of documents (conventional or not) which are closely connected in the common space of a global network integrating sound, video and texts. The extensive communication model could be easily represented as a network of connections and autonomous mediations, however interconnected, predicting the end of hierarchies and the beginning of a new informational order whose paradigm is the free space for negotiation and freedom of speech, with a diversity of actions and methods for mediation.

The proposition which supports the concept of mediation and extensive communication does not rely entirely on technology, otherwise it would be ineffective. This challenge was explained in detail by Cuban writer Ítalo Calvino. When introducing the new 21st century literature in his book "Six memos for the next Millennium", Calvino offers a precise summary of the most important features of text, which ensure the understanding and "communion of ideas" regardless of technology. Such qualities, in different forms of expression, demonstrate the need for writing accuracy and technique and the mastery of tools which produce discourse. It is the text (understood in a broader sense) that determines the rhythm of narrative and its comprehension, and its assimilation to dialog is a process of permanent negotiation. It is also worth noting the variables related to

social, cultural and political context inherent to the issues addressed in mediation.

In order to understand or even to discuss mediation as a communication and negotiation process, it is also important to observe the cultural codes. The individuals involved in the process of information transfer alternate roles during the conversation, since they have explicit discursive needs and their behavior is revealing. Therefore, receptors and emitters take the position of mediators according to time and space in a dialogical rhythm under permanent negotiation, as conflict forces are processed and reactions manifested. This complexity increases with cultural differences and its codes. There lays the importance studying the role of mediator as an active transforming social agent who stimulates change, ensures the content is transmitted and who often ensures that such transmitted information may produce knowledge in the communication space.

In the current information society, mediation should thus assume a conciliatory nature, also balancing conducts in the information space. As an intermediate action, mediation can intervene in order to transform a discursive context (possibly of conflict), in a conforming dialogical stage, thus finding a conciliatory term. In this context the mediated discourse becomes a negotiation of interests which may promote personal and collective development.

The ACS as a strategic mediator of SUS in Brazil

There are roughly 204 thousand ACS in the entire country. They are present in both rural communities and urban outskirts, as well as in highly urbanized and industrialized cities. They are integrated into the "Family Health Care" program (PSF), coordinated by the Ministry of Health, and are recruited in the same communities in which they will be working. For this strategic reason in terms of mediation, the ACS are vital to the job of providing health information and communication in Brazil. They have the same signs and symbols of their clients and for this they are regarded as essential to mediation in health. They enable contact to be solid and the relationship more dynamic, an exchange in which the citizen can connect through common language and establish a relationship based on trust - of fundamental importance when it comes to health. By adopting the extensive communication model, the ACS mediation process can be expanded, since it allows the construction and collective use of common language (ACS and community) and each time more complex, for they will be able to establish a dialog based on propositions, discussing the issues of Brazil's collective health.

It is relevant that the act of *communicating* transforms both the individual who communicates and the recipient of such communication, once the expressions "*cannot be born entirely formed, they must develop gradually*"; the complex mental processes of meaning also must develop and perfect in this dialogical relationship (VYGOTSKY, 2002,

p. 89). New virtual communities are formed around thematic interests which materialize the information society. In this context, supports evolve in order to connect information in different levels, creating networks of different proportions, with an increasing number of users and communities. Mediation expands alternating different groups of emitters and receptors

Difficulties as to the understanding of possibilities of communication are also evident when one observes that there are no concerns as to the education of a communicator during ACS training. In this research, the view of *collective health* assumes the “health promotion” as a paradigmatic alternative, confronting traditional health sciences, which focus their practices on illnesses and their diagnosis. Health care services in Brazil are organized *in and by* SUS, arising from and a representative of the democratization process of the Brazilian state in the eighties. This health care system, in one of its guidelines, addresses the *demonopolization* of knowledge as a strategy to transfer information, in which the health care professional spreads their knowledge to the community using the services. Nevertheless, several biases make this process difficult, such as the level of knowledge to be spread and the receptor’s ability to retain this knowledge.¹

Considering the PSF’s proposal which includes a set of actions aiming to promote, protect and regain health, enforcing the principles of universality, totality and equity, it is obvious that the role of communicator is strategic for health care professionals and that the need to assess communicative instruments and processes, which may offer more promising results in the Brazilian health care scenario, is one of the program’s duties.

In conformity with PSF criteria for professional admission, the agent must work in the same community where they live, which grants the ACS effective knowledge (symmetric) of that location, and a natural intimacy with the problems and routines of where they live. Seeing themselves as communicators, as individuals who educate and transform through the information they spread is fundamental to motivate the agents’ work. Once trained by specialists in the areas of information and communication, they will be able to work properly as mediators in the process of information transfer, since they possess the experience of a good relationship and probably good practices with the community.

Brazil is a country of extremes. It is assumed that, by offering training in health communication and information, by adopting the communication technology tools, the process of information transfer becomes relevant and of wide range, since the knowledge of subjects pertaining collective health could reach all of SUS’ users, equally, following one of the principles of this system which is universalizing its procedures.

During their permanent training, the ACS has contact with conventional communication models while acting as a receptor, paying no attention to their development as a mediator. When the ACS and the instructor consolidate the learning process on a certain subject or piece of information through training, they should also

discuss different ways to communicate and a mediation strategy.

After the learning process, the ACS becomes a receptor and emitter of that content, and, while working with the community, he acts as a mediator. From then on, the community becomes a receptor and emitter center for the ACS, who encourages the spread of knowledge and feeds the content of that community back to SUS, closing a communication circuit.

Breaking barriers and expanding the model

²The ACS Digital Inclusion projects which took place in Sergipe and the Federal District (DF) started in 2007 with preparatory workshops and seminars, culminating in two large international events which involved specialists in the areas of information, communication and collective health, including the ACS. It was necessary to include in the proposal the participation of scientific initiation students (initially in the field of library studies) to draw up the first manuals to be used as information sources in the project. The workshops on Health Information, Education and Communication were developed and monitored by teachers and students of the Information Science Graduate Program of the University of Brasília, in addition to the Center for Public Health Studies, also of UnB. In accordance with the proposal, later presented to the Ministry of Health in a formal application for funding:

The project was designed in a participatory manner with the general management and members who are a part of the execution team, taking the following into consideration:

- a) the social demands of this research in terms of the importance of ACS’ digital inclusion in order to improve the qualification of their daily work procedures, including centrality, information, education and health communication;
- b) integration between teaching, research and further education; the communities are active individuals in the action-reflection-action process and in their life and health conditions;
- c) the possibility of using free software tools in order to encourage dialog through this technology between researchers from other teaching and research institutions, as way to articulate and exchange experiences in designing the methods, contents and models applied to the project’s assessment.

During its formulation, the contemporary challenges to ACS education were assessed, considering the digital inclusion policy as an opportunity to improve their work and taking into account not only aspects related to technology, but mainly the potential for improvement in communication and reading and information competencies. Fernandez Valdez et al. (2008) regard competence as the possession of intellectual and

physical abilities as well as sufficient conduct (knowledge, abilities and attitudes) to perform a task or a role in an appropriate manner to accomplish the desired result. In that view, the project should stimulate the abilities during the Alfin workshops aiming at a research attitude toward solving problems related to the daily activities of the ACS.

In order to put this proposal into action in the Graduate Program in Information Sciences together with collective health specialists and researchers at the same University of Brasília, a research group was created focusing on the subjects of communication, information and collective health, strongly influenced by the traditional IEC (Information, Education and Communication) studies, whose theory basis in Brazil are the educator Paulo Freire's guidelines. The group's goal, which includes students and researchers from other areas (computer science, communication, archival science), is to work with Family Health Care Program (PSF) teams and encourage the production of content based on the extensive communication indicators and Information Literacy (Alfin). Mediation is accompanied by workshops for the improvement in the use of communication technologies and by attention to the objective concept of information and research and its application.

The intention of the workshops is to turn Scientific Initiation students into tutors focusing on ACS training in the Federal District. The teams are managed by University of Brasília professors, but they also rely on input from researchers from the Universidad Complutense de Madrid (Spain). The Spanish appear to be motivated by the study of Alfin in Brazil, especially regarding issues related to assessment and the creation of indicators. The study material was selected based on predicted features and attributes of reading competency and improvement and encouragement in international literacy published by the *International Federation of Library Associations* (IFLA).

In addition to the ACS from the Federal District and surroundings, the research aims to assess digital inclusion projects from ACS in Sergipe, from 2009 to 2013, with regard to the production of content, social reception, mediation and applicability, supported by integration between the fields of Information, Education and Communication. Work on Alfin began in 2009, in a pioneering proposal, with 40 ACS from the city of Sobradinho (in the outskirts of the FD). The test group has already experienced the free software training workshop and provides reference to the development of modules in planning the EAD (Distance Learning) workshops, a method which should be employed in the expansion of this proposal in other localities.

For this investigation, the following are also assessed: multipliers, undergraduate students, community representatives and managers who are directly or indirectly involved with projects, all identified as mediators in different levels. The recruitment of community representatives will take place by a casual approach (random), upon the ACS visits. As for the managers, they will be

interviewed afterward, according to the institutional relevance of their position in the municipal or state health systems in the places where the project is being carried out. Research of support data is carried out in different sources: documents, direct context observation and interviews.

Alfin research

Among the most common Alfin concepts, those which reinforce the "teaching and learning" work for the development on research knowledge and skills can be highlighted. Thus, teaching technique would be based on information research and use activities, using a theme field, with the identification of typologies and perception of information needs. The decision to implement an Alfin program, associated with the ACS' work, is a strategic attempt to improve the service conditions of a sensitive sector, which possesses a large collection of specialized material, but whose shortcoming is that it does not deal appropriately with educational information with more popular and accessible language. There are no policies which aim to offer better training to PSF professionals in that respect. The ACS are the potential communicators who understand and experience the reality of communities in urban and rural areas, and that is why this actor was chosen in the proposed study.

It is important to highlight that the project works both on individual training as well as on collective skills in the communication processes. Internet use is frequent in the workshops. In the exercises which question the Brazilian public health issues, information is presented as a possible solution for the ACS to learn to develop selection and also information organization criteria in a research environment. When starting work in the Alfin workshops, an entire conceptual basis on information is discussed and presented as a tool to solve daily problems.

Some subjects are used as motivation for debates with the ACS. Discussion includes, for example, the role of institutions which possess information, issues regarding press information and information in the school and in the society experiencing the internet. In several countries the public library as well as the school library supports the development of Alfin workshops and this institution could serve as a basis for work with the ACS. In Brazil, however, this is problematic since the public libraries have no encouragement to carry out work of this nature with investments to take on fully the role of promoters of the population's information literacy. This issue is addressed with the ACS in order to motivate them in the concern to realize the value of information as a collection and social memory.

Among the institutions which stand out internationally in spreading the Alfin message, IFLA has been carrying out important work in compiling experiences. IFLA norms are based on the experience of several countries and the procedure methodologies with Alfin can be grouped under three basic components: information access, assessment and use.

Access is characterized by the definition and characterization of information needs, and the decision to search for and locate information. During assessment, the users establish criteria in a critical manner, they analyze and interpret search results (research) and are capable of establishing priorities, organizing and classifying data. During use, activities related to communication and production of knowledge are carried out. In several experiences, in Alfin training activities, ethical aspects on the use of information are included. Regarding the research project carried out with the ACS, the following stages were chosen:

- a) digital inclusion (learning about hardware and software, prioritizing the use of free software);
- b) information and typologies. Getting to know objective information;
- c) search systems. Learning how to search;
- d) discovering communication;
- e) extensive model;
- f) collaborative model, all -all;
- g) discussing ethics and human rights.

The Scientific Initiation students initiated the study by developing manuals to be used as information sources in the field of collective health, which helped in drawing up materials to encourage reading and research training, considering different types of information and skills for the use of information technologies. Part of the dynamics adopted in the Alfin workshops was adapted from proposals and procedures carried out in other training programs developed in São Paulo. An important example, which was used as a reference, is the research with elementary school students in Brazil during activities created by the Reference Group in Educational Computing (SME-SP), mediated by the teams from DOT Elementary and High School - Educational Computing and the EducaRede Program, part-time attendance, and broadly published on the internet.

Some authors extend the concept of information literacy in the field of health, and define it as the set of skills needed in order to recognize need for information on health, to identify appropriate sources of information and use them to retrieve relevant information, to assess the quality of such information and its applicability for a specific situation, as well as to analyze, understand and use this information to make appropriate health decisions. Therefore, there is need for a document which defines the information competencies as part of a norms system for the health libraries environment (FERNÁNDEZ VALDÉS et al., 2008). According to Espinet (*apud* FERNÁNDEZ VALDÉS M et al., 2008 p.3), the need to develop competencies specific to the field of health is regarded as such:

...if the nature of the information abilities are well defined as a competence of transverse nature, some authors state that such abilities, even though they may be transferable, are better learned and internalized when associated with a context and a

*particular area; in that sense, the peculiarities of each subject claim for the existence and development of specific models in developing information competencies... In the health sciences scenario, information access and use acquire special relevance in professional practice. That is why the development of skills is being considered as specific and basic competencies for professional development. (ESPINET, *apud* FERNÁNDEZ VALDEZ et al., p.3, 2008)*

In order to reach the goals proposed in the Inclusion and Alfin projects, the dynamics and activities were adapted according to the professional profile and the professional's position in the context of the PSF, whose mission is to promote preventive and educational action in order to promote collective health in Brazil. During the development of the workshops, it is important to observe the learning movement which involves not only the ACS, the target audience of the Alfin, but also the undergraduate and graduate students who carry out research in the field of information and health. They are university students from the undergraduate degree programs in Library and Information Studies, Collective Health, Computer Science and also graduate students in Collective Health and Information Science. This effort contemplates a competency of a transversal nature, which stands out in scientific literature.

The activity is complemented by permanent assessment of actions and distribution of products and services, such as books, booklets, source guides, scientific articles, etc. Everything is posted on the project's website, as well as on Moodle's pages, which support the groups. All dynamics which include both skills in using equipment and software, as well as digital literacy and reading, research and communication competencies will be transformed into modules for distance learning (EAD).

The ACS receive training to communicate collaboratively, integrating skills developed for an extensive communication environment; in other words, with multiple resources and multidimensional information. It is important to highlight that, regardless of the format, the contents must be integrated with their functions and knowledge with public health care professionals. In the workshops, they must also produce materials with strategic planning (with goals, discussed as a team) aiming to carry out campaigns and integrated actions.

Several resources are used, such as *blogs* (tool), the production of videos, research on Google, etc. All is supervised by the undergraduate and graduate tutors. In its methodological construction, research with Scientific Initiation (undergraduate students) aims to point future paths which may help actions to support digital inclusion projects in the set of Brazilian cities which work with ACS, in connection with these professionals' permanent education, both electronically and by attendance (use of advanced technology). The ACS' digital inclusion represents a follow-up to technological progress which may improve the distance learning or partial attendance process of these professionals in a permanent manner, in addition to making possible for communities assisted by these Agents to obtain access to information, education and communication in public health issues, helping them

in the processes of education and use of information as a public asset.

Notes

1. Set forth by Ordinance number 648/GM of March 28th, 2006, which states the management of care based on primary health care organized through the Family Health Care strategy; the National Policy for Integrative and Complementary Procedures - PNPIC in SUS (Ordinance number 971/GM of May 3rd, 2006, which states the development of actions which include the set of approaches defined by the World Health Organization - WHO as Traditional, Complementary and Alternative Medicine) and, mainly, Brazil's National Health Policy.

2. Ibero-American Conference on Health Information Communication (I CIACIS), which took place in December 2007 and the 4th International Workshop on Health Information Communication (OICIS), which took place in December 2008, both in Brasília-DF.

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