

# User generated content: Cybernetic infographic visual narrative

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## ABSTRACT

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User Generated content is a marketing strategy that emphasizes consumer-generated content, social media followers, and fans. The UGC trend has sparked interest in cyber media HaiBunda.com to integrate UGC in the process of creating infographic visual narratives. The infographic on HaiBunda.com is the result of media and UGC integration. The media provides a UGC space, for discussion, commenting, reading and viewing pictures. In practice, cybernetics visual narrative involves the role of information theory, control theory, and systems theory. Most of the UGC infographic channel visitors are millennial mothers who have interests in information about parenting patterns and child development. Can UGC readers interpret the visual infographic narrative, respond to and apply the values of daily morality in childcare? The purpose of the writing is to find out how millennial mothers interpret the visual infographic narrative. The qualitative method, Talcott Parsons' approach, is to see the meaning of the visual infographic narrative as a system, interrelation, has mutual influence to the media and readers. The results show that the visual narrative of HaiBunda.com's infographic with the theme "Tahukah Bunda" means educational and informative and contains moral values and the nature of women.

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## 1. Introduction

A lot of content is presented to attract visitors. Ranging from simple chats, video conferencing, email exchanges, blogs and discussion groups [1], [2]. Content created and published by cyber media users is called User Generated Content (UGC). User Generated Content through discussion or content uploads can give the effect of awareness of an information for readers [3]. Content can be made for personal, community, corporate, and online mass media. HaiBunda.com is one of UGC providers, which has contents that narrate about parenting, pregnancy, birth, breastfeeding, through verbal-visual language with the segmentation of millennial mothers. "Tahukah Bunda" is one of the infographic themes found on the Infographics channel. Apart from several infographic themes, it is also equipped with a comment column for readers to respond and comment on. Readers can access directly to Instagram, YouTube, and twitter. Millennial mothers are the generation born between 1980-1999, ages 18 to 35 [4].

On the one hand, it is considered that there is not enough experience in child care and education. The other side should work. Working mothers have greater challenges than working fathers [5]. Cybernetics is an interdisciplinary study of regulatory systems' structure and is closely related to information theory, control theory, and systems theory [6]. Talcott Parsons' cybernetic theory states that society consists of parts (sub-sub) that are interrelated and influence each other reciprocally [7]. It is said to be a complex system because the various elements contained in it interact and influence each other [8].

The digital era has considerably impacted people's lives, encouraging a shift from manual methods to digital media. Automation and digitization, as long-term evolutionary processes, are causing significant effects, such as the transformation of jobs and job profiles, changing forms of work, and a more significant role for the platform economy, generating challenges for social policy [9] and it is also because technology will continue to move like ocean currents that continue to run during human life [10]. In the digital era, digitally visualized information does not lose its significance; it makes it easier to convey it to the audience [11]. The need for information is increasingly pressing towards the digital era, and humans are subject to an unprecedented amount of information [12]. With the explosion of digital media content and access tools in the last generation, more information is now available to more people from more sources than at any time in human history [13]. In this era of technological acceleration, the media is required to be fast but clear in providing information to the public; because the public has limited time, media is needed to present information that is concise and easy to understand and is specifically aimed at organizing the chronology of events presented through statistical data. In delivering information to the public, information and most of the news carried out in the last decade have used infographics that are believed to be famous and influential in visualizing data and conveying information to audiences more clearly attractively [14]. In terms of storytelling, various infographics with attractive visual compositions are ultimately one of the attractions for the audience to understand better the content of the news conveyed. Digital Storytelling (DST) combines the art of storytelling with multimedia features, namely digital graphics, text, recorded voice narrations, videos and music that presents particular material with a particular duration of time packaged in digital format [15]. DST takes advantage of the audacity program and operates it with Windows Movie Maker. Visualization of images can be made freely by the designer and creator of the media. Infographics are tools that combine images and text to frame information and ideas concisely [16]. Visual literacy is needed to understand it [17], apart from being visual learning [18]. It is also a form of knowledge set how to present infographics through text and numbers, charts, graphs or maps, and characters to convert data into visually accessible arguments [19], [20].

## 2. User Generated Content

Indirectly related research on cybernetics and User Generated Content (UGC) has been widely carried out. Tourism research [21], memes advertising [22], online newsrooms [23], [24], participatory design [25], social networking, and UGC diffusion [26], differences in brand-related UGC on youtube, Facebook, and Twitter, consumers' motivation to make UGC [27], the impact of UGC on online purchase product reviews [28], and the role of UGC [29]. Similarly, research related to mass media and women's issues [30], new mothers and online media users [31], [32], parents and digital media [33], media infographics, and journalistic narratives [34]. However, there are not many studies linking infographic visual narratives about millennial mothers in the world of cybernetics with ultrasound. The least relevant research is research on UGC in the newsroom and new mothers and online media users. The phenomenon of citizen journalism and UGC has created new challenges and opportunities for mainstream media, where UGC can be integrated into the professional news-making process. However, sparse but growing research on participatory journalism shows that several contextual factors hinder the adoption of user-generated content in newsrooms at different levels of newsroom organization [35]. Using a social construction approach, based on semi-structured interviews, the main conclusion is that participatory journalism develops rather slowly; caused by newsroom structure, work routines, and professional beliefs regarding user contributions.

## 3. Method

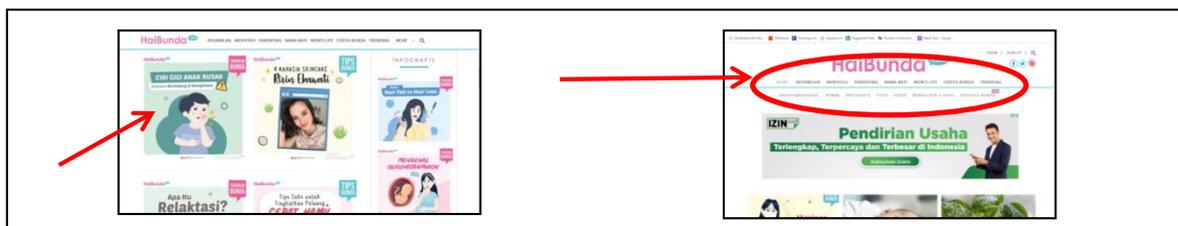
Talcot Parsons, society consists of parts that are interrelated and influence each other reciprocally. In the cyber world, HaiBunda.com is part of a virtual social community with parts of a systemically structured visual narrative. Systemically, UGC works whenever readers interact, respond, read, share news, send comments, and upload photos or videos.

Data collection is done through; an online observation by taking one of the themes of the infographic Tahukah Bunda on the infographic channel Haibunda.com, followed by online interviews with four millennial mothers, with 13 questions. The 13 questions were then simplified into five core questions which were considered to have a close relationship with the object under study. The literature study was conducted to complete the data when the research took place.

Based on Talcott Parsons, the analysis is divided into four stages: adaptation, go-tooltainment, integration, and latent pattern maintenance. They were seeing the relationship of social systems built between narratives and images and integrated elements so that they can achieve the goal, which cyber users can enjoy. Three questions Parsons; about social order and values; the nature of social action; essential features of modern society in values and social structure; contribution of sociology to understanding and fostering progressive social relations [30]. Parson's idea, influence as a medium of general exchange circulating in the social system. The analogy between economic and sociological conceptual systems goes beyond the simple notion of exchange, which is, in fact, a key concept for studying the workings of social systems.

#### 4. Results and Discussion

HaiBunda.com UGC consists of eight main contents; home, pregnancy, breastfeeding, parenting, baby names, mom's life, mother's story, trending. Then the seven visual narrative channels, namely; haibunda squad, comics, infographics, photos, videos, moms need to know, mom's catalog. In the main room of UGC, there is a display of text narration topics accompanied by photos and the names of the authors. Then in another UGC room, there are image content accompanied by information created by illustrators, infographers, and video makers, sourced from various data sources, and scriptwriters. All of them contain narratives adapted to their content, and each narrative is systemically integrated. The visual narrative of the infographic Tahukah Bunda from 2017 to 2020 has 22 infographics divided into seven categories: pregnancy, birth, breastfeeding, health, bullying, education, and jastip (entrustment services).



**Fig. 1.**An example of the cybernetics narrative space display on the home page (source: HaiBunda.com)

The structural properties of social networks, especially millennial mothers and the media HaiBunda.com (detikNews-Detik.com) have a major influence on the development of both. They contribute to more or less inequality [36]. Fig. 2, explained that HaiBunda.com internal system is very dependent on external systems, connected to its parent detikNews–Detik.com, digital technology, internet, information flow, media devices as communication tools. Media as UGC users and providers, cybernetic visual narratives, and readers as UGC users are three elements that cannot be separated from the virtual communication system.

In the Tahukah Bunda theme room, seven (7) concepts can be interpreted as pregnancy, birth, breastfeeding/MPASI, health, education, bullying, and services. The total number of narrative topics in it is 22 topics. Each of these topics can be connected, and interaction occurs when the cursor movement appears from the user's hand. The system becomes more intense in its interaction activities when many users from various geographic areas with the same purpose seek the same information or other purposes and engage in reading, searching, and commenting activities in that space.

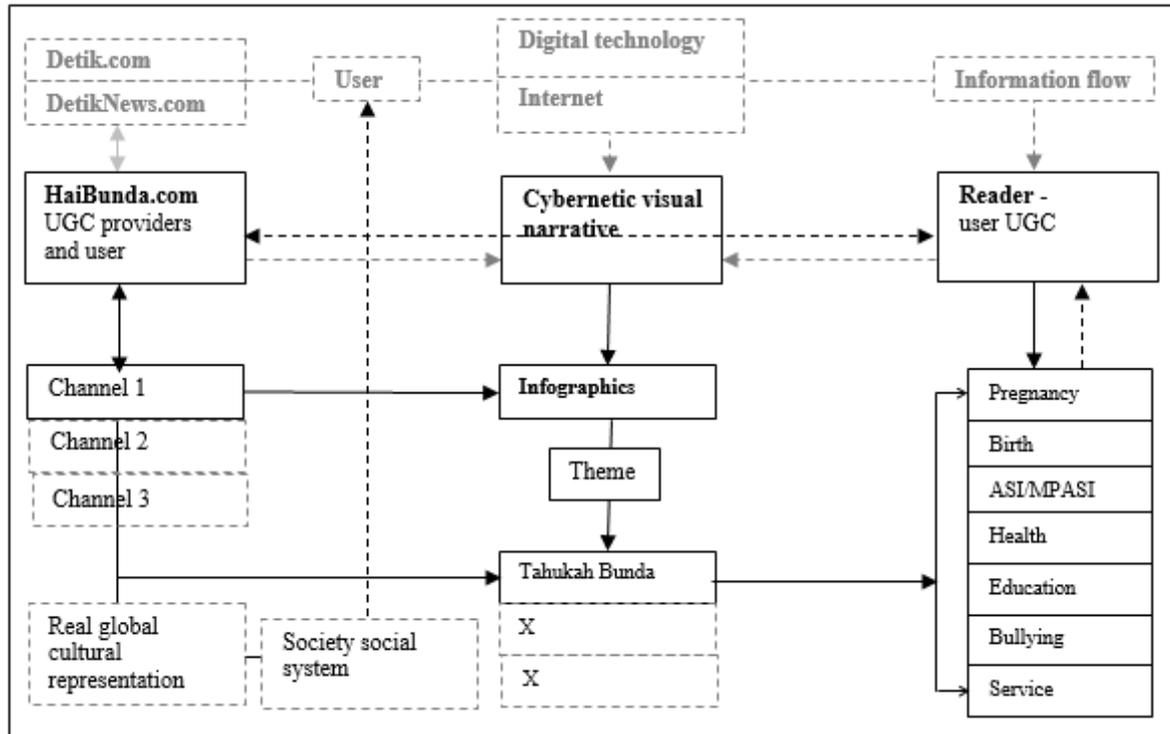


Fig. 2. HaiBunda.com infographic visual narrative flow scheme

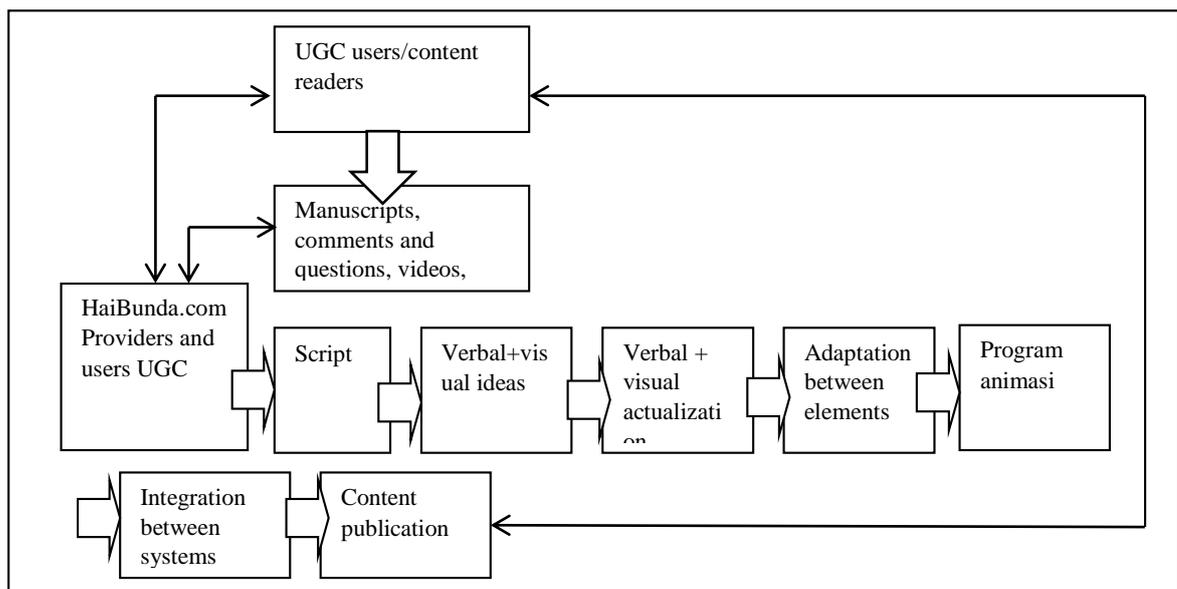


Fig. 3. The flow scheme of the infographic narrative system on HaiBunda.com in the cyber world

Fig. 3 explaining HaiBunda.com also has its own system, which is integrated with its parent detikNews-Detik.com. HaiBunda.com adheres to the ideology of its parent media management while maintaining identity stability and positioning in the virtual social environment. Most importantly, HaiBunda.com is tasked with bridging the activities of the mother's social community in cyberspace in the delivery of knowledge narratives through image information (infographics). The media also provides a comment field.



Fig. 4. Examples of some of the cybernetics infographics visual narrative displays are Tahukah Bunda

Fig. 4 here is the thumbnail display section of the infographic visual narrative of the “Tahukah Bunda” theme, which was mentioned on the previous page. The visual language presented is varied, but has a strong correlation with the use of color elements and space formats, namely vertical. The consistency of identity and visual narrative themes is maintained systemically and is connected. The difference is, sometimes it is HaiBunda.com who narrates, which is supported by the advice and opinions of psychologists, pediatricians, therapists, teachers, or media parties that are strengthened from data sources or research institutions or companies that are relevant to the content raised.

As a visual narrative of cybernetics infographics, the theme “Tahukah Bunda” contains the meaning and values of humanity. The nature of women is practical and essential to be understood and understood by Indonesian mothers to develop the next generation. Based on Talcott Parsons, cybernetic infographic visual narrative is an interrelated system and influences each other reciprocally between the reader and the media. These interrelated parts respond when one of the images or the navigator icon changes color when a cursor passes and presses 'click'.

Visual narratives are arranged systemically, and the UGC system works whenever there is an activity for readers to interact, respond, read, share news, send comments, and upload photos or videos. The reader's response states that it is necessary to present a narrative about parenting patterns and child development.

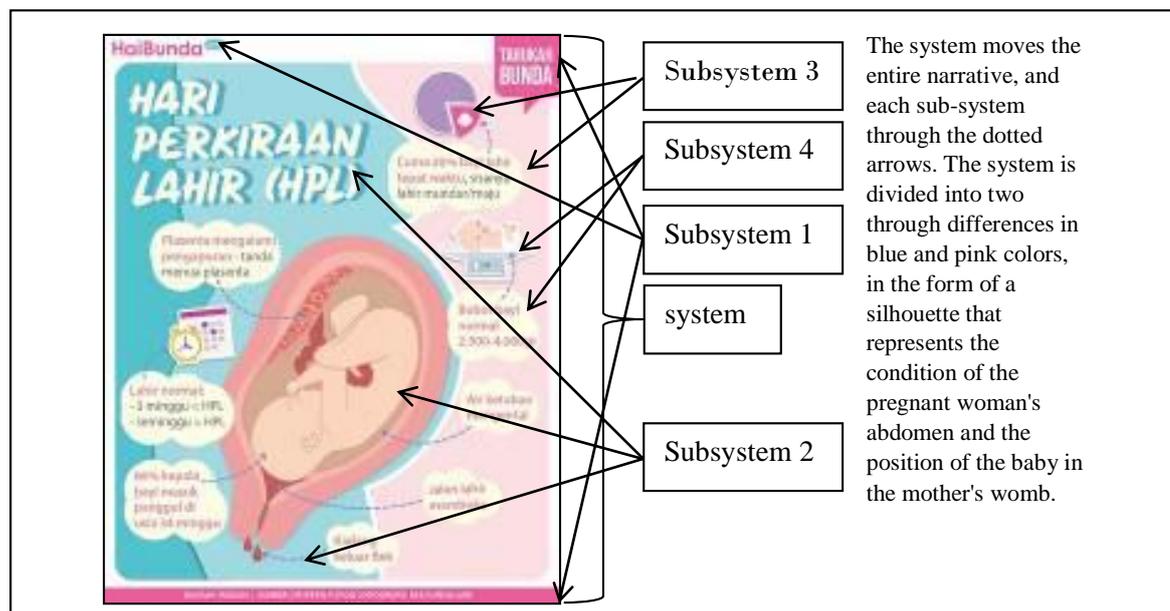
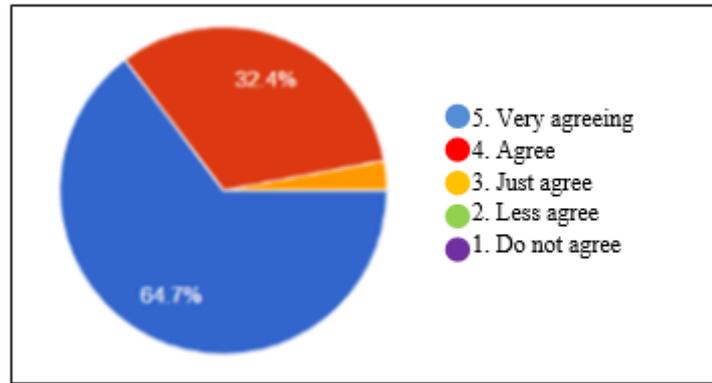
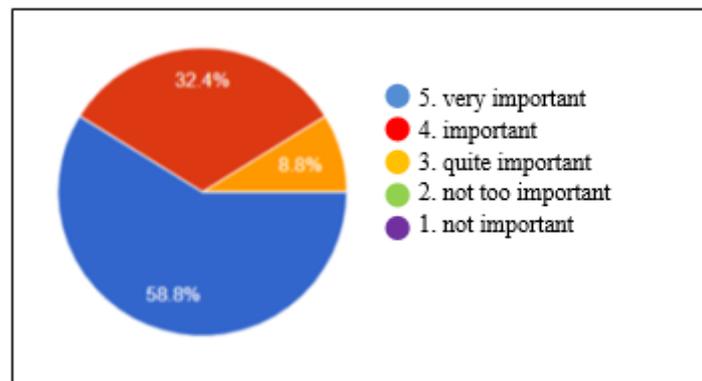


Fig. 5. An example of an infographic visual narrative scheme about Estimated Birth Day

The results obtained are 64.7% of respondents who agree with presenting information about mothers on social media. Following that, 32.4% agreed, and the rest answered quite agree. This questionnaire conclusion shows that the presentation of information is considered very important. Then followed by a questionnaire about the importance of breastfeeding information, child care and education patterns, growth and development, and nutrition. Fig. 6 and Fig. 7 show the respondent responses.



**Fig. 6.** Questionnaire about the importance of information related to mothers on social media



**Fig. 7.** Questionnaire on the knowledge importance about breastfeeding, parenting and child education, health, school, and diet

Mother's responses about the importance of breastfeeding knowledge, parenting and child education, health, school, and diet showed that 58.8% said it was very important, 32.4% said it was important, and 8.8% said it was quite important, shows the position of information about children and toddlers is very important. They are supported by the results of interviews conducted by the author with several millennial mothers (Table 1). Analysis of P1-a, P1-b, P1-c, and P1-d proves that information is a need to increase intellectually young mothers, and through social networks, aspirations and dynamic information can bring mothers' experiences in education and child care. Information on parenting patterns for children and families through social media is important and can be updated and consulted directly through the consultation column provided. Millennial mothers are rationalist characters and trust information from the internet more to share with peers or directly with experts in their fields, rather than listening to information from parents and grandmothers. Efforts to increase knowledge and patterns of children's education in millennial communities can be influenced by the lack of insight, demography, independence, digital media, needs, and networking. Besides, it is helpful for the user audience and the internal media. It can be proven by the results of research conducted by Forbes. Infographics help marketing and business development by almost 60%, relying on visuals in social media messages 74%.

**Table.1** Millennial mothers' responses to the importance of information on parenting

Code	Response
P1-a	Important, because now we are more familiar with gadgets. So if there is information through social media or sites it will be very helpful and can always update information. In addition, sometimes there is a column for online consultation through the site, so it is very helpful.
P1-b	Important for young mothers
P1-c	Yes it's important and sometimes I know the information from facebook
P1-d	This is important because not all millennials know information about parenting patterns. Especially those who live in urban areas without being accompanied by their grandmothers and grandfathers, these millennials seek a lot of information via the internet or online media.

Infographics as an effective medium reaches 84%<sup>26</sup>. While infographics for educational purposes stated that the presentation of information through infographics has 29.3% more because it has better visuals and is more descriptive, more permanent in mind for 16.4%, presentations are more understandable 10.7%, and more interesting 4.3 % [37]. As a visual narration of cybernetics infographics, the theme of “Tahukah Bunda” contains meanings and values related to women's life cycle. Knowledge about the problem of mothers is important to be understood and understood by Indonesian mothers, especially for the development of the next generation.

The interconnected sub-systems in “Tahukah Bunda” create their meanings in a small scope and a larger context. Because the system is an integrated whole consisting of interconnected parts [38], users can easily capture and interpret information related to parenting patterns and child development because it is presented through visual infographics. Infographic function research states that 90% of the information sent to the brain is visual, and visuals are known to increase learning and retention by 400% [39]. The revealed meaning of Fig. 7 shows relevance and integration of the married woman cycle: pregnant, giving birth, breastfeeding, providing nutrition as supporting food, caring for, educating, maintaining health, and protecting children from outside disturbances. Allah created humans through pregnancy, which must be taken care of properly in the process of becoming a whole human.

Adaptation. Online media and all its contents are virtual social systems [40], which must adapt to the environment they face, in this case, the global audience and culture. The cybernetic narrative of the infographic on HaiBunda.com is evidence of an effort to adapt to the millennial society. UGC is revolutionizing interactions among people, and users can now share and create personalized content on the internet instead of just using available content [41]. Thus it can be said that UGC is a system that involves the community and the media. HaiBunda.com's media goals must align with larger social goals to avoid conflict with social-environmental goals. All the infographic narratives presented on their website reflect problems and solutions for young mothers who are considered to have minimal knowledge, especially regarding parenting and child education. To grow the adjustment of the infographic narrative with social reality that produces dynamics.

As the narrative in Fig. 8, the individual gains a presence, transmits tradition, education, and knowledge of the language, history, art, and costume. A prominent feature is in contemporary artistic practices, in works that remain in time, marking the origin of culture and the process of identification and adaptation to other realities in space and time. The purpose of social media, to blur the line between our personal and professional lives [42]. Integration. Media HaiBunda.com as a content creator user, shows the social solidarity of the parts that make it up. Integration between the narrative elements of HaiBunda.com's infographic and its readers can only be realized if all the elements that make up the system adapt to each other. There is integration between spaces when infographic channels turn blue when the cursor is moved and intersects. (click) the moving screen infographic opens a narrative space with infographic thumbnails of various themes.

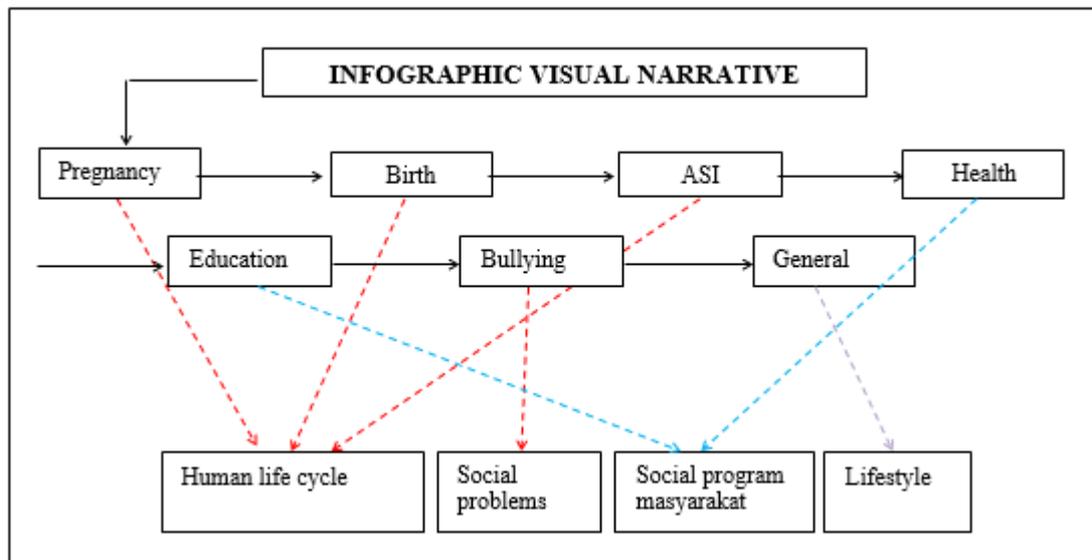


Fig. 8. Visual infographic narratives Tahukah Bunda

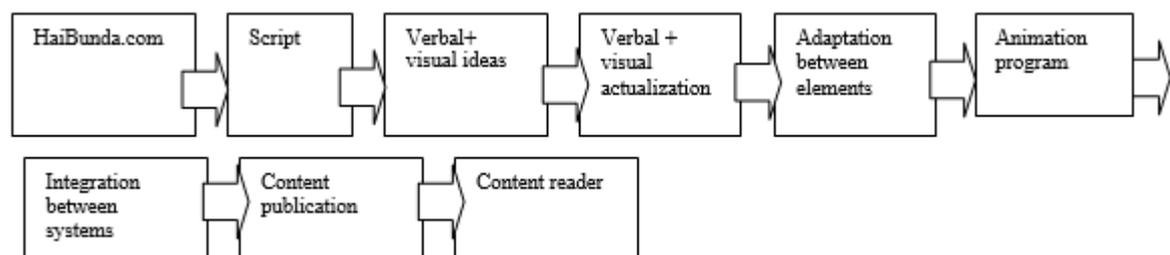


Fig. 9. Cybernetics narrative

From thumbnails, users are free to move the cursor and search for content as they wish. The cursor moves back and forth. When the user clicks on one of the infographics, the full view of the infographic space appears. The infographic page consists of the narrative title, the scriptwriter's name, day, date, and year, then social media icons such as Facebook, Twitter, links. Below it is a narration that aims to convey the contents of the infographic. One author says being 'social' means being available in real-time for marketing, customer service, and user analytics. This new reality offers excellent opportunities for any company looking to dive into the world of mobile marketing and social media [43]. The rapid spread of social media platforms such as Twitter and Facebook prompted scholars from various fields of study to investigate these sites [44]. Latent Pattern Maintenance. Media HaiBunda.com, as the maintenance of narrative patterns in the form of a cultural value system constantly controls the actions of users, is the value that society has agreed upon will be able to control the integrity of social solidarity.

As revealed by HaiBunda.com, all content uploaded by users (user-generated content) is entirely the user's responsibility. Haibunda.com has the right to edit or remove any content uploaded by users that violates the law or, as regulated by the Cyber Media Coverage Guidelines [45]. Media control and social control. Latent Pattern Maintenance media is a functional requirement related to efforts to keep the system in balance, efforts to bind individuals in the system, efforts to be prepared if members are acting outside the system. Goal attainment: the system must define & promote primary goals.

According to Talcott Parsons (Fig. 10), it is known that User Generated Content has created its social system with female readers. Efforts to transfer social meanings such as education, health, and the nature of women to readers are the result of media adaptation as UGC to women's events globally. Tahukah Bunda is evidence of a visual narrative of adaptation efforts to the millennial society. Reflecting the problems and solutions for young mothers who are considered to have minimal knowledge, especially regarding parenting and child education patterns.

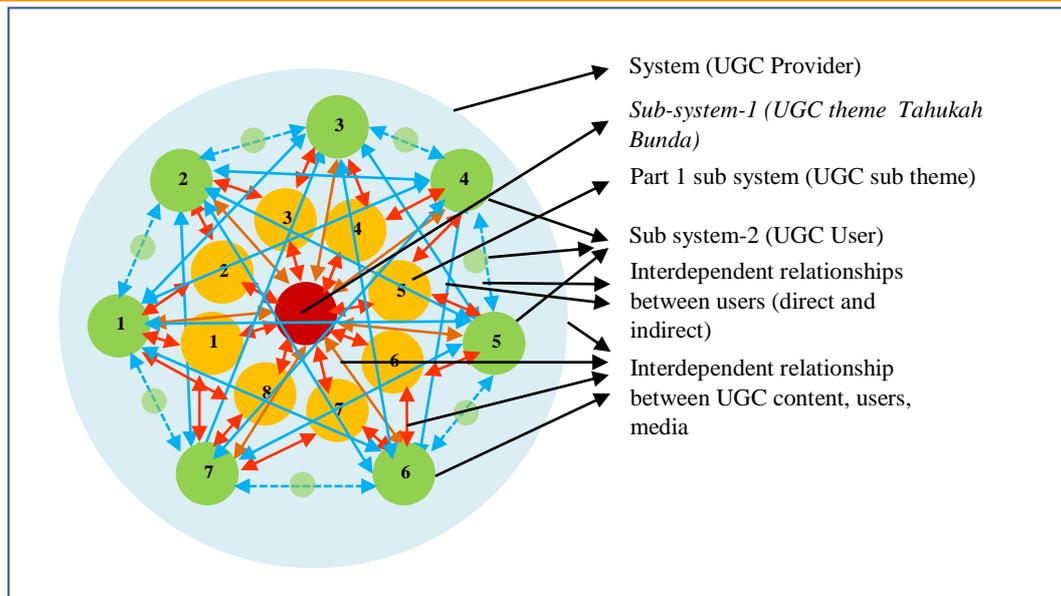


Fig. 10. Description of the analogy of social systems based on Talcott Parsons.

## 5. Conclusion

To conclude, UGC proves social solidarity. The integration between the visual narrative elements of the cybernetic infographic Tahukah Bunda and the reader can be realized if all the elements that make up the system adjust to each other are mutually agreed. HaiBunda.com as the creator of the cultural value system, constantly controls the user's actions. As revealed by Haibunda.com, that user-generated content is entirely the responsibility of the user. Haibunda has the right to edit or remove any content uploaded by users that violates the law and or as regulated by the Cyber Media Coverage Guidelines.

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