RESEARCH PAPERS

"CYBER" READING IN L2: ONLINE READING STRATEGIES OF STUDENTS IN A PHILIPPINE PUBLIC HIGH SCHOOL

By

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ABSTRACT

This paper seeks to identify the online reading strategies employed by students in a Philippine Public High School. In particular, the study attempts to answer the following questions: (1) What are the online reading strategies used by the respondents (i.e., global, problem-solving, and support)?; (2) What is the frequency of use of the online reading strategies of the respondents?; and (3) What are the implications of the study's findings for English language teaching and learning? By means of the adapted Survey of Reading Strategies (SORS) by Sheorey and Mokhtari (2001), data were obtained from 100 readers of a public high school in Quezon City, the Philippines. The analysis of the results revealed that problem-solving strategies were the most frequently used online reading strategies, followed by global reading strategies and support reading strategies. Finally, the results furnish a pedagogical perspective on how online reading strategies can impact second-language or L2 teaching and learning.

Keywords: Global Reading Strategies, Online Reading, Problem-Solving Strategies, Reading Comprehension, Reading Strategies, Support Reading Strategies.

INTRODUCTION

Reading is a fundamental skill to acquire information, for it is a process that aids in meaningful construction (Temur et al, 2010). For the past two decades, many studies have been done about reading comprehension. Most results are based on research about how good readers interact with texts. Research has likewise found that good readers are active or strategic and use a variety of comprehension strategies before, during, and after reading a text.

A reading strategy is defined as a systematic plan that readers adopt to facilitate reading comprehension (Haris & Hodges, 1995 as cited in Kirmizi, 2010), and the construction of meaning. These strategies include previewing, self-questioning, making connections, visualizing, knowing how words work, monitoring, summarizing, evaluating, and the like. Researchers believe that using such strategies helps students become metacognitive readers (McLaughlin & Allen, 2002).

In support of the foregoing ideas, Carrell and Grabe (2002) explicates that when reading,

"… a reader engages in processing at the phonological,

morphological, syntactic, semantic, and discourse levels, as well as engages in goal setting, text-summary building, interpretive elaborating from knowledge resources, monitoring and assessment of goal achievement, making various adjustments to enhance comprehension, and making repairs to comprehension processing as needed. (p. 234)".

While the reading process seems automatic in nature defined as reading skill (Williams & Moran, 1989, p. 223), and goes beyond one's conscious control, readers still exert a significant level of active control over their reading process through the use of strategies, which are conscious procedures that are deliberate and purposeful (Urquhart & Weir, 1998; Williams & Moran, 1989, p. 98).

Since reading is a problem-solving process, an analysis of reading strategies can provide insights as to how readers interact with the text, and how their choice or use of strategies influences their comprehension of the text. A focus on reading strategies likewise helps researchers determine the extent to which readers understand the purpose of what they read, how they make sense of what

they read, and what they do when they do not understand some aspects of the reading material.

Reading strategies are influenced by the proficiency level of a reader. For instance, Carrell and Grabe (2002) underscore the importance of vocabulary knowledge in dealing with second-language (L2) text as well as noting the difficulty nonnative readers may have in deciphering words from context (a reading strategy), especially when the context is not very helpful. Moreover, Skehan et al. (1998) caution that the task itself may pose challenges for the nonnative reader; and in fact, the length of a text and the nature of questions asked about it can impact the strategies L2 readers use.

Research in L2 reading has shown that L2 readers draw on a wide array of reading strategies (e.g., Carrell & Grabe, 2002; Upton & Lee-Thompson, 2001). Planning and identifying strategies include the following: planning how to read the passage, examining any notable discourse features, identifying the purpose of reading, checking for prior knowledge of the topic, reading through the whole text, reading portions selectively, looking for markers of meaning, and spotting unclear portions of the text. The strategies during reading include monitoring ongoing understanding of the text, predicting, rereading for clarification, and modifying comprehension based on newly acquired information. In addition, these are the strategies associated with identifying the discourse structure of the text and important information found in it: identifying key words and sentences carrying the main ideas and determining how the different parts of the text function in the discourse. Further, readers need to strategize when the reading remains unclear or ambiguous by inferring the meaning of words, and ideas based on clues in the text (Carrell & Grabe, 2002; Upton & Lee-Thompson, 2001).

Nowadays, online learning environments are becoming popular for most teachers and students. However, few studies focus on appropriate online reading strategies for different types of learners, and most of them focus only on the effectiveness of text-based reading strategies. More so, the Internet is widely used for locating information, and acquiring general knowledge. In many contexts, in order to

be successful, one must develop web literacy (Leu, 2002; Sutherland-Smith, 2002a), that is, the ability to use the Internet to locate, read, understand, and communicate information.

Corollary to the above information, internet reading is regarded as one of the new literacy skills (Alvermann, 2002; Coiro, 2003; Lankshear & Knobel, 2003; Leu, 2002) or multiliteracies skills (New London Group, 1996). The use of Internet has implications for education. To be fully prepared to face the challenges in society, it is imperative that students learn how to read the Internet (International Reading Association [IRA], 2001; Leu, 2002).

Coiro (2003) indicates that through electronic texts, Internet reading introduces new supports, and new challenges that can impact an individual's ability to comprehend a text. To be succinct, electronic texts are typically nonlinear, interactive, and inclusive of multiple media forms. Each of these characteristics opens new opportunities, and presents a range of challenges that requires a new thought processes for making meaning (Coiro, 2003). According to Preece (1993), electronic texts are rich, and loaded with information because of chunks of information linked together. Thus, readers are constantly engaged in decision-making processes regarding their reading order and the sources of information they should use (Leu & Reinking, 1996). So, it is necessary to make learners conscious of their online reading strategies. Acquiring these strategies is fundamental to lifelong learning (Amer, 2004).

Recent research reveals that students who lack electronic reading strategies easily get frustrated when they interact with Internet text, because they are not instantly satisfied in their rapid search for immediate answers, and may adopt a "snatch-and-grab philosophy" not apparent in print text environments (Sutherland-Smith 2002b, p. 664). Oftentimes, they "make hasty, random choices with little thought and evaluation" when reading online texts (Eagleton2001, p. 3).

Sheorey and Mokhtari (2001) conducted a research to ascertain the metacognitive reading strategies of L2 learners. They likewise developed an instrument named Survey of Reading Strategies (SORS) to gauge the metacognitive reading strategies of L2 readers engaged in reading academic texts. The study focused on examining

the differences in reading-strategy usage between native and nonnative speakers of English. Data revealed that the latter reported a higher use of strategies than the former. The ESL (English as Second Language) students reported their use of a greater number of support reading strategies. Also, those who had a higher self-reported rating of reading ability used a higher frequency of reading strategies than those who gave themselves a lower rating. Sheorey and Mokhtari (2001) argued that "skilled readers . . . are more able to reflect on and monitor their cognitive processes while reading. They are aware not only of which strategies to use, but they also tend to be better at regulating the use of such strategies while reading" (p. 445).

Schmar-Dobler (2003) studied the strategies of 17 fifth-grade students who read the Internet. The main concern of Internet reading addressed in her study was locating information. It was found that strategic readers created a mental plan for their search and applied several strategies in their reading, e.g., determining important ideas, monitoring and repairing comprehension, and making inferences.

A recent study conducted by Coiro and Dobler (2007) investigated skilled sixth-grade students' reading strategies as they searched and located information on the Internet. Findings showed that Internet reading comprehension requires both established and new sources of knowledge and needs "more similar and more complex dimensions of inferential reasoning" (p. 231) than reading printed text requires. Skilled readers demonstrated the use of a range of self-regulated reading strategies. Some of these strategies were patterned to the ones used in printed text, such as independent fix-up strategies and strategies of planning, predicting, monitoring, and evaluating. Some of them were more complex than those used in printed text.

In this paper, the researchers identify the online reading strategies employed by public high-school students. Specifically, the study attempts to answer the following questions:

1. What are the online reading strategies used by the respondents?

    a. global reading strategies

    b. problem-solving strategies

    c. support reading strategies

2. What is the frequency of use of the online reading strategies of the respondents?

3. What are the implications of the study's findings for English language teaching and learning?

Framework of the Study

This research is anchored on a view of reading as more than simply translating written words recognized, or decoded into oral language to comprehend (Gough & Tunmer, 1986; Hoover & Gough, 1990). The researcher believes that comprehension covers a range of processes, including: (a) processes that are verbal and nonverbal, such as making sense of graphical elements in text; (b) processes that are at least partially verbal but do not have an obvious aural component, such as skimming and scanning text; and (c) processes entailed in navigating the text being comprehended (Pressley et al., n.d.). This broader view of comprehension fits well within a "new literacies" framework. According to this framework, the emergence of new technologies, such as the Internet, has changed the nature of literacy (Lankshear & Knobel, 2003) and what being literate means and requires. According to Leu, Kinzer, Coiro, & Cammack (2004):

"New literacies of the Internet and other Information Communication Technologies (ICT) include the skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in our world and influence all areas of our personal and professional lives. (p. 1572)".

Method

Research Design

The current study utilized the descriptive method. Through a survey, the strategies of students in online reading (Internet texts, e-journals, stories, and the like) were identified. This research is anchored on the view that reading is more than simply translating written words recognized or decoded into oral language to comprehend (Gough & Tummer, 1986; Hoover & Gough, 1990).

Participants

The participants in this study consisted of 100 readers from

a Public School in Quezon City, ranging from ages 14 to 17 years old. Most of them were junior students, and about 10% were seniors. Their respective advisers based on their inclination as online readers and their proficiency in the English language (average to proficient readers) with reference to their final grades in English in 2012 handpicked the participants.

Instrument

The Survey of Reading Strategies (SORS) by Sheorey and Mokhtari (2001) was adapted for the study. The survey (OSORS or Online Survey of Reading Strategies as used in the study) is intended to measure the learners' metacognitive awareness, and perceived use of strategies when reading online texts. The OSORS consists of 30 items and uses a 5-point Likert scale ranging from 1 ("never or almost never") to 5 ("always or almost always"). Further, the instrument measures three categories of reading strategies: global reading strategies (18 items), problem-solving strategies (11 items), and support reading strategies (9 items).

Data-Gathering Procedure

The researcher-teacher carried out the survey during the English language classes of the participants. Prior to the day of data collection, a short background of the study was discussed with the students, so they would have an idea of what survey they would answer. Also, their consent to become participants of the study was obtained, allowing the researcher to pursue the research and use the results while preserving the subjects' anonymity. During the data collection, the participants were given 20 minutes to accomplish the questionnaire.

Results

The following tables show the data gathered from the survey, including the verbal interpretation and rank of each strategy. A brief interpretation of the results is presented after each table.

Table 1 shows the global reading strategies employed by the student-respondents.

Data reveal that among the global reading strategies used by the respondents, the strategy 'I read pages on the Internet for fun' got the highest mean of 4.84 verbally

Global reading strategy	Mean	Verbal interpretation	Rank
1. I have a purpose in mind when I read online.	4.78	Almost or almost always	2
2. I participate in live chat with other learners of English.	2.15	Occasionally	17
3. I participate in live chat with native speakers of English.	1.77	Never or almost never	18
5. I think about what I know to help me understand what I read online.	4.14	Usually	6
6. I take an overall view of the online text to see what it is about before reading it.	3.11	Sometimes	13
8. I think about whether the content of the online text fits my reading purpose.	4.17	Usually	4
10. I review the online text first by noting its characteristics like length and organization.	3.23	Sometimes	12
14. When reading online, I decide what to read closely and what to ignore.	3.74	Usually	9
17. I read pages on the Internet for academic purposes.	2.45	Occasionally	16
18. I use tables, figures, and pictures in the online text to increase my understanding.	3.63	Usually	10
20. I use context clues to help me better understand what I am reading online.	2.58	Sometimes	15
23. I use typographical features like bold face and italics to identify key information.	4.35	Usually	3
24. I critically analyze and evaluate the information presented in the online text.	3.08	Sometimes	14
26. I check my understanding when I come across new information.	3.27	Sometimes	11
27. I try to guess what the content of the online text is about when I read.	4.16	Usually	5
30. I check to see if my guesses about the online text are right or wrong.	4.10	Usually	7
32. I scan the online text to get a basic idea of whether it will serve my purposes before choosing to read it.	4.00	Usually	8
33. I read pages on the Internet for fun.	4.84	Always or almost always	1

Scale:
4.50 – 5.00 Always or almost always
3.50 – 4.49 Usually
2.50 – 3.49 Sometimes
1.50 – 2.49 Occasionally
1.00 – 1.49 Never or almost never

Table 1. Global reading strategies of the respondents

interpreted as *always or almost always*; followed by 'I have a purpose in mind when I read online' (4.78), *always or almost always*; and 'I use typographical features like bold face and italics to identify key information' (4.35), *usually*. On the other hand, the strategies 'I participate in live chat with native speakers of English' and 'I participate in live chat with other learners of English' got the lowest means of 1.77 (*never or almost never*) and 2.15 (*occasionally*),

respectively.

The results in Table 2 indicate the problem-solving reading strategies utilized by the student-respondents. Findings reveal that the students *always or almost always* adjust their reading speed according to what they read online, and try to get back on track when they lose concentration when reading, with the means of 4.71 and 4.58, respectively. In addition, they *usually* reread a difficult online text to increase their understanding (4.43). However, the strategies 'I can distinguish between facts and opinions in online texts' and 'When reading online, I look for sites that cover both sides of an issue' obtained the lowest means of 1.63 and 1.78, correspondingly, with the verbal interpretation of *occasionally*.

As seen in Table 3, the top support reading strategies of the respondents are 'When reading online, I think about information in both English and my mother tongue' (4.03) and 'When reading online, I translate from English into my

native language' (3.93), both verbally interpreted as *usually*. On the other hand, the students *occasionally* print out a hard copy of the online text then underline or circle information found in it (with a mean of 1.82).

Data in Table 4 show the frequency of use of the online reading strategies of the respondents. As gleaned from the findings, problem-solving strategies ranked first with a mean of 3.41. In sum, all the online reading strategies, namely, global, problem solving, and support were verbally interpreted as *moderate* in level.

Discussion

The present study started from an interest in identifying the online reading strategies of Secondary Public High School students, believing that the advent of new technologies, such as the Internet, has changed the very nature of literacy and reading skills.

The top global reading strategies of the respondents are: reading pages on the Internet for fun; having a purpose in mind when reading online; and using typographical features like bold face and italics to identify key information. With regard to the top global reading strategy, the student-

Problem-solving strategy	Mean	Verbal interpretation	Rank
9. I read slowly and carefully to make sure I understand what I am reading online.	3.67	Usually	6
11. I try to get back on track when I lose concentration.	4.58	Always or almost always	2
13. I adjust my reading speed according to what I am reading online.	4.71	Always or almost always	1
16. When online text becomes difficult, I pay closer attention to what I am reading.	4.24	Usually	4
19. I stop from time to time and think about what I am reading online.	3.31	Sometimes	7
22. I try to picture or visualize information to help remember what I read online.	2.83	Sometimes	8
28. When online text becomes difficult, I reread it to increase my understanding.	4.43	Usually	3
31. When I read online, I guess the meaning of unknown words or phrases.	2.51	Sometimes	9
34. I critically evaluate the online text before choosing to use information I read online.	3.86	Usually	5
35. I can distinguish between facts and opinions in online texts.	1.63	Occasionally	11
36. When reading online, I look for sites that cover both sides of an issue.	1.78	Occasionally	10

Scale:
4.50 – 5.00 Always or almost always
3.50 – 4.49 Usually
2.50 – 3.49 Sometimes
1.50 – 2.49 Occasionally
1.00 – 1.49 Never or almost never

Table 2. Problem-solving strategies of the respondents

Support reading strategy	Mean	Verbal interpretation	Rank
4. I take notes while reading online to help me understand what I read.	2.76	Sometimes	8
7. When online text becomes difficult, I read aloud to help me understand what I read.	3.21	Sometimes	4
12. I print out a hard copy of the online text then underline or circle information to help me remember it.	1.82	Occasionally	9
15. I use reference materials (e.g., an online dictionary) to help me understand what I read online.	2.82	Sometimes	7
21. I paraphrase (restate ideas in my own words) to better understand what I read online.	3.24	Sometimes	3
25. I go back and forth in the online text to find relationships among ideas in it.	3.11	Sometimes	5
29. I ask myself questions I like to have answered in the online text.	2.87	Sometimes	6
37. When reading online, I translate from English into my native language.	3.93	Usually	2
38. When reading online, I think about information in both English and my mother tongue.	4.03	Usually	1

Scale:
4.50 – 5.00 Always or almost always
3.50 – 4.49 Usually
2.50 – 3.49 Sometimes
1.50 – 2.49 Occasionally
1.00 – 1.49 Never or almost never

Table 3. Support reading strategies

Online reading strategy	Mean	Level	Rank
Global	3.13	Moderate	2
Problem-solving	3.41	Moderate	1
Support	3.09	Moderate	3

Scale:
4.50 – 5.00   Very High
3.50 – 4.49   High
2.50 – 3.49   Moderate
1.50 – 2.49   Low
1.00 – 1.49   Very Low

Table 4. Frequency of use of the online reading strategies
of the respondents

respondents tend to read online texts for fun perhaps, because of their enthusiasm to look for interesting, and entertaining reading materials. This indirect strategy in reading, according to Oxford (1990), is affective, thus, enabling learners to manage their emotions, attitudes, motivations, and values when reading. Likewise, setting a purpose is another important global reading strategy by the respondents, for a reader's purpose affects everything about reading (e.g., determining what is important in the text, what is to be remembered, what comprehension strategy to be used to draw meanings) (Anderson, 2003). The respondents also utilize typographical, and any other textual features to foster comprehension of online texts by looking at keywords. Such a keyword strategy has been found, through research, to be effective in strengthening one's ability to comprehend. De Courcy and Birch (1993) conducted a research through open-ended interviews, observation, and think-aloud protocol with four Japanese students and found that the students mainly used keywords as their reading strategy to understand the whole text. To Fagan (2003), ESL learners need the keyword strategy as a scaffold during the reading process.

With regard to their top problem-solving strategies, the respondents adjust their reading speed according to what they read online, try to get back on track when they lose concentration, and reread a difficult online text to increase their understanding. Faust and Glenzer (2000) opines that such a rereading strategy enables one to obtain meaning of his favorite reading sections and make meaning with texts. In a similar vein, Short, Kane, and Peeling (2000) found that rereading can help students familiarize themselves with the texts. More so, research has shown that rereading strategically enhanced the reading comprehension skills of

students (Millis & King, 2001; Brown, 2002).

The most frequently used support reading strategies of the respondents are: thinking about information in both English and the mother tongue and translating from English into the native language. Langer, Bartolome, Vasquez, and Lucas (1990) in their study explained that students who were good readers in either of their two languages also tended to be good readers in the other language. This was due to the transfer of good comprehension strategies across languages. Other studies have also used the notion of strategy transfer to explain why students who are good readers of their native languages are often good readers of their second languages (Miramontes & Commins, 1989; Saville-Troike, 1984).

In sum, problem-solving strategies are the most frequently used online reading strategies of the respondents. These are the actions that readers commonly undertake to solve problems when reading difficult texts that include adjusting reading speed, paying attention to reading, pausing to reflect on reading, rereading the text to enhance comprehension, visualizing the information read, reading text out loud, and guessing the meaning of unknown words (Pookcharoen, 2009).

Conclusion

Based on the foregoing findings, it can be inferred that the students used various reading strategies when reading online texts. They used these strategies in guaranteeing their comprehension of these texts based on their specific purpose/s. Likewise, the online strategies of the respondents keep up with the modern view of reading comprehension that conforms to a "new literacies" framework (Lankshear & Knobel, 2003).

Pedagogical implications arise from the present study. Through the empirical data drawn, ESL teachers will have a great deal of idea about the varying skills and strategies employed by online readers in creating and recreating meanings from their reading experiences, which are different from the traditional or offline reading environment. Additionally, teachers can integrate in their lessons other specific online reading strategies, such as using online reference materials (e.g., online dictionaries, e-journals, hyperlinks, and the like), resolving conflicting information

using credible online resources, and evaluating the validity and accuracy of online information.

In an attempt to enrich the online reading strategies of the students, it is necessary to maintain a language classroom that welcomes the use of Information and Communication technologies, thereby, facilitating teaching and learning. In this way, these reading strategies will be reinforced, thus, contributing to the development of effective academic reading skills that can meet new literacy demands and challenges.

Although most of the results of this study seem to be valid and confirm previous investigations, further research with larger populations can be undertaken to generalize results. Possible topics can cover the comparison of online reading strategies used by ESL and EFL learners or the specific online reading strategies students use in their respective disciplines (e.g., science and technology, mathematics, history).

Appendix

Online Survey of Reading Strategies

(Adapted from KouiderMokhtari and Ravi Sheorey, 2002)

The purpose of this survey is to collect information about the various strategies you use when you read online in ENGLISH (e.g., surfing the Internet, doing online research, etc.). Each statement is followed by five numbers, 1, 2, 3, 4, and 5, and each number means the following:

'1' means that 'I **never or almost never** do this' when I read online.

'2' means that 'I do this **occasionally**' when I read online.

'3' means that 'I **sometimes** do this' when I read online. (about 50% of the time)

'4' means that 'I **usually** do this' when I read online.

'5' means that 'I **always or almost always** do this' when I read online.

After reading each statement, circle the number (1, 2, 3, 4, or 5) which applies to you. Note that there is no right or wrong response to any of the items in this survey.

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Statements		Scale			
1. I have a purpose in mind when I read online.	1	2	3	4	5
2. I participate in live chat with other learners of English.	1	2	3	4	5
3. I participate in live chat with native speakers of English.	1	2	3	4	5
4. I take notes while reading online to help me understand what I read.	1	2	3	4	5
5. I think about what I know to help me understand what I read online.	1	2	3	4	5
6. I take an overall view of the online text to see what it is about before reading it.	1	2	3	4	5
7. When online text becomes difficult, I read aloud to help me understand what I read.	1	2	3	4	5
8. I think about whether the content of the online text fits my reading purpose.	1	2	3	4	5
9. I read slowly and carefully to make sure I understand what I am reading online.	1	2	3	4	5
10. I review the online text first by noting its characteristics like length and organization.	1	2	3	4	5
11. I try to get back on track when I lose concentration.	1	2	3	4	5
12. I print out a hard copy of the online text then underline or circle information to help me remember it.	1	2	3	4	5
13. I adjust my reading speed according to what I am reading online.	1	2	3	4	5
14. When reading online, I decide what to read closely and what to ignore.	1	2	3	4	5
15. I use reference materials (e.g., an online dictionary) to help me understand what I read online.	1	2	3	4	5
16. When online text becomes difficult, I pay closer attention to what I am reading.	1	2	3	4	5
17. I read pages on the Internet for academic purposes.	1	2	3	4	5
18. I use tables, figures, and pictures in the online text to increase my understanding.	1	2	3	4	5
19. I stop from time to time and think about what I am reading online.	1	2	3	4	5
20. I use context clues to help me better understand what I am reading online.	1	2	3	4	5
21. I paraphrase (restate ideas in my own words) to better understand what I read online.	1	2	3	4	5
22. I try to picture or visualize information to help remember what I read online.	1	2	3	4	5
23. I use typographical features like bold face and italics to identify key information.	1	2	3	4	5
24. I critically analyze and evaluate the information presented in the online text.	1	2	3	4	5
25. I go back and forth in the online text to find relationships among ideas in it.	1	2	3	4	5
26. I check my understanding when I come across new information.	1	2	3	4	5
27. I try to guess what the content of the online text is about when I read.	1	2	3	4	5

Statements	Scale				
28. When online text becomes difficult, I reread it to increase my understanding.	1	2	3	4	5
29. I ask myself questions I like to have answered in the online text.	1	2	3	4	5
30. I check to see if my guesses about the online text are right or wrong.	1	2	3	4	5
31. When I read online, I guess the meaning of unknown words or phrases.	1	2	3	4	5
32. I scan the online text to get a basic idea of whether it will serve my purposes before choosing to read it.	1	2	3	4	5
33. I read pages on the Internet for fun.	1	2	3	4	5
34. I critically evaluate the online text before choosing to use information I read online.	1	2	3	4	5
35. I can distinguish between facts and opinions in online texts.	1	2	3	4	5
36. When reading online, I look for sites that cover both sides of an issue.	1	2	3	4	5
37. When reading online, I translate from English into my native language.	1	2	3	4	5
38. When reading online, I think about information in both English and my mother tongue.	1	2	3	4	5

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