Professional online communities and networking in the EFL context: What makes them work?

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Abstract
This paper aims to explore how a Malaysian English Language (EL) classroom, through the use of a social media platform, Facebook, can have a global impact, reaching more than 26,000 people across more than 40 countries. By conducting an online survey and collecting network data, we investigated whether the page can be considered an online Community of Practice (CoP), what makes people follow it, what content attracts them, and what posts are shared. We also looked at the network structure of the community to discover its internal structure and the connections which exist within. Our findings indicate that the Facebook page cannot be considered a CoP, but a Community of Interest and that personal as well as virtual connections are vital to make information flow through the community. Certain hubs were identified in the network that allow content generated by the page owner reach way beyond the membership and have a global impact. Finally our research found that the most important participants - language teachers - are satisfied to follow the page to learn about new pedagogy, download class materials, without feeling any pressure (or need?) to contribute.

Key words
Community of Practice, network analysis, online learning, teacher development, social networking

Introduction

Social networking is a reality of the 21st century and it is part of our everyday life, including both personal and professional domains. We keep in touch with friends, colleagues, discuss current issues with strangers, and share what we feel strongly about or what is close to our hearts. Humanity is connected more than ever in history and information reaches every corner of the globe at a speed unprecedented before. Very often we find that the distinction between our private and professional lives become blur in social networking, especially as people become members of different communities with the progression of their careers. A typical example of this is Facebook. Although DiMicco and Millen (2007, p.383) argue that it may be "challenging for individuals to manage their personal identity within a website originally designed for the college years", an increasing number of teachers use it to cater to both their personal lives and professional development.

One of the reasons why teachers - especially those referred to as 'millennials' or 'Generation X', i.e. a demographic group often identified as digital natives (Prensky, 2001) - might be active on a social networking platform is that it offers them smooth transition between different social identities: the personal and the professional. Teaching can be a rather hectic profession and sometimes it is difficult for young professionals to create a healthy work-life balance; to socialize and find time for their friends while they are trying to meet work requirements and deadlines, looking for lesson plan ideas and new materials online. It is no wonder, that some consider social networking platforms ideal for online professional development since they do not require participants to familiarize themselves with new technology or learn how to operate within a novel learning environment. As Kiss (2015) argues, using Facebook for the professional development is advantageous as it can be incorporated into the participants' everyday online activities. Indeed, the past two decades have seen the golden age of blended learning and the development of online communities of practice. Furthermore, online social contacts can have other professional benefits, for example, when one is looking for their next career opportunity, they may rely on referrals from online social contacts (Horvath, 2012).

In this paper we present the findings of an exploratory research project that set out to investigate how a professional online community, hosted on Facebook and managed/owned by a Malaysian primary school EFL (English as a Foreign Language) teacher, can serve as a platform for professional collaboration. We were interested to find out how such an online community could be defined, and what attracts participants from over 40 countries to become members of the group. In order to understand its structure, we carried out a network analysis to uncover the links and their strength between members as we believed this would shed light on how information is created and shared within the community.

In the following we will first offer a theoretical background to online communities of practice and then discuss our research methodology including the research questions and data analysis

techniques, in details. Finally, we offer our interpretation of our findings together with some suggestions on how an online professional community can be successful.

Online communities of practice (CoP)

With the dawn of social constructivist theories, the concept of Communities of Practice (CoP) (Lave & Wenger, 1991; Wenger, 1998) gained popularity in many fields, including education. A CoP is a "learning partnership among people who find it useful to learn from and with each other about a particular domain. They use each other's experience of practice as a learning resource" (Wenger, Trayner, & de Laat, 2011, p. 9). Wenger (2004) argued that for a CoP to operate, there should be three elements: a 'domain', which defines the area of focus for members, e.g. English language teaching; 'community', i.e. a group of participants for whom the domain is relevant and who define membership by identifying who belongs and who does not (though they may be legitimate members of the broader domain); and 'practice' that refers "the body of knowledge, methods, tools, stories, cases, documents, which members share and develop together" (Wenger, 2004, para. 15).

With technological development and social media use, the idea of forming online CoPs emerged. As Wenger (2010, p. 179) explains, "a community of practice can be viewed as a social learning system", therefore, it can be easily seen implemented in a social networking space. When a particular group is created on Facebook, for instance, it is clear what domain it addresses (i.e. what the focus of the group is, let that be a collection of cycling enthusiasts or English language teachers), who the members are, i.e. defining the community, and whether membership is obtained through application (closed groups) or whether it is open to anyone to join, and finally, how the group will use the affordances of the platform to share ideas, materials, and discuss - thus generate knowledge - within the community.

What brings participants to these online learning communities is the value they gain through participation. In fact, the more "value is created as a result of CoP members' activities and in their interactions with others in informal networks" (Smith, Hayes, & Shea, 2017, p. 214), the more attractive participation in that community becomes. In an online CoP, the group's prestige is reinforced when information is shared not only among its members, but with non-members who can be part of the domain, but not participants of the community. Such information sharing with 'outsiders' can "allow for the formation of social ties through which expertise can flow" (Penuel et al., 2009, p. 127) and through which the community can grow. Therefore, investigating the social links between members of a community, and those with others within or outside of the domain, can contribute to our understanding of how an online CoP operates and how the value of a particular community is perceived. Through social ties linking the community to others outside the CoP, the community has a possibility for growth and gain more members. It can thus reach a higher potential for value generation with expertise added to the group.

Concerns about online CoPs

It should be pointed out that it would be a mistake "confusing the community with the technology" (Wenger, White, Smith, & Rowe, 2005, p. 2). Using an online social networking platform is no guarantee for the formation of an effective CoP. Technology can contribute to the success as it makes communication and the formation of social and professional connections among members relatively easy. However, it is the active participation of its members, the practices they engage in, that would determine the effectiveness of the group. When little or no value is created through interaction within the group it will stop functioning and members will disappear or become dormant. Therefore, every online CoP needs active members who share, create content, and prompt discussion within the group.

However, not all special interest groups on Facebook allow such open content generations for members. Some restrict that role to the group's 'owner' and moderators allowing others to only respond to content generated, using the comment, emoticons (like, love, laugh, etc.), or share functionalities. These groups may not be considered a CoP but, according to Henri and Pudelko's (2008) classification, a Community of Interest as they generate knowledge mostly for individual use. These communities show a lot less cohesion and collective practice than what would be expected of a fully functioning CoP and this suggests that members "do not necessarily form a CoP when they are part of a learning environment" (Smith, Hayes, & Shea, 2017, p. 220).

Another concern in relation to the effectiveness of online CoPs is the possible lack of a shared, specific context that can tie a community together. Borg (2003; 2006) argues, that teacher cognition is influenced by a teacher's educational experiences as a learner, their training to become a teacher, and the classroom context(s) into which they are socialized and work during their career. Therefore, he explains, what defines teachers' beliefs, values, knowledge, and thinking is strongly connected to their classroom experiences both as learners and teachers. If that is the case, that one may wonder whether a shared (either narrowly or broadly) experience would be beneficial, even required, for an effective online CoP? Would a variety of experiences gained in a multitude and diverse contexts enrich or hinder sharing and learning in a professional community?

Examples of multi-context EFL communities on Facebook

There are examples of online communities on Facebook that cater to the needs of an English Language Teaching community and which are characterised by a very wide pool of membership. One such community is *Teacher Voices* a 10,000 member group, administered by academics, with a membership from all over the world, represents a mix of classroom teachers, researchers, and academics. It is a closed group and membership is gained through application. Members are free to post and there is minimal (if any) moderation of content. Topics and discussions are usually initiated by the moderators and some posts have the potential to generate a healthy debate in the comments section. Other posts typical in the community focus on information

sharing that covers three broad topics: advertising members' publications within the community, job opportunities (usually, but not exclusively in the South East Asian region, where most of the members come from), and calls for conferences and publication opportunities. The group aims to grow its membership and extend its reach to 25,000 members in the near future by actively soliciting and inviting participants.

A very different structure is shown in another online community, also from the South East Asian region. *Teacher Dilla's English Lessons* was created by a Malaysian primary school EFL teacher. The page is focused on its owner's teaching activities and posts usually cover materials used in the classroom, activities, reflections on their success, and other general thoughts about education (mostly limited to the Malaysian context). The group is open to the public and has 26,000 members - interestingly, from all over the world. However, the community is limited in their interaction; members cannot create content, their participation is allowed in the form of reacting to the content the group owner provides. The page does not advertise for more participants, yet its membership is steadily growing and members join not only from Malaysia (as one would expect) but from Africa, the Middle East, Europe, and even from the Americas.

These Facebook groups, although they show some similarities, seem to be rather different both in their aims and how they work. One actively recruits members to expand its value generating potential, whereas the other does not seem to be concerned about membership numbers. One allows members to post and regularly encourages such activities, the other limits content creation to its owner and only allows interaction in relation to what has been posted. A more detailed comparison is provided in Table 1 below:

Table 1
A comparison of *Teacher Voices* and *Teacher Dilla's English Lessons* (data reflects status as of April, 2018)

	Teacher Voices	*Teacher Dilla's English Lessons*
Membership (cca)	10,603	26,309
Status	Closed (membership through application)	Open (anyone can join)
Content generation	Created by members	Created by owner
Content	a) Advertisements about members' publication and professional activities; b) Job opportunities;	a) Lesson plans; b) Classroom activities; c) Reflection on teaching; d) Pictures and videos of

	c) Conference and publication calls; d) General professional discussion about current issues of research.	classroom activities.
Focus	General research and current issues in EFL teaching	Specific to its owner's teaching and classroom experiences
Participation	Members can freely post and initiate discussion, though page moderators actively solicit participation	Participation is limited to reaction to content created by owner.

One would expect *Teacher Dilla's English Lessons* to be more marginal and less significant than *Teacher Voices*, but this does not seem to be the case. Therefore, this paper sets out to investigate what makes this particular Facebook community successful and what draws its members to the page. More specifically, the following research questions are asked:

1. Can *Teacher Dilla's English Lessons,* a professionally oriented, open, special interest group, hosted on a social networking site, be considered as a Community of Practice?
2. Who are the members of such a group and why they choose to join the community?
3. How strongly connected is the network of professionals in *Teacher Dilla's English Lessons*?

Research methodology
In order to find answers to these research questions and increase the validity of the findings we employed a mixed methods approach, collecting data with the use of different research instruments relying on both primary and secondary data: a) a questionnaire survey, b) network analysis of a sample of its members, and c) a content analysis of the most popular posts on the page.

One of the key issues we had to tackle during the data collection is ethical considerations. Although there have been numerous research studies that examined social networking, there is still a grey area of what data are freely usable and what consent to be used. Some argue that data which appears in the public domain can be used without the explicit content of those who generate it, while others hold the view that any website which requires a password to access its content is private domain, therefore researchers need to get consent from members to use content they generate. As Casilli and Tubaro (2017) point out "problems arise as the boundaries between "public" and "private" spheres become confused". In this research project we asked consent from participants who volunteered to fill in our survey form, and we also have the consent of the group owner - one of the authors of this paper - to use statistical data provided by Facebook on

page users and content. This statistical data has already been anonymized by the social network platform, therefore individual users were not possible to identify.

Survey

A survey questionnaire was posted on *Teacher Dilla's English Lessons* and members of the group were invited to answer them. They were informed of the nature of the research and that their answers were to be anonymised to protect their identity before they granted electronic consent of participation. The questionnaire contained both quantitative and qualitative items and aimed to elicit both demographic information and reasons why users are attracted to the page. The final part of the survey asked participants to optionally provide their names and the names of their Facebook contacts ('friends') who are also members of the page. This data meant to help us create a network file to analyze the internal connectivity of the group. Altogether 240 participants filled in the questionnaire.

Social network analysis

Unfortunately, the social networking site where *Teacher Dilla's English Lessons* is hosted no longer makes a network file available for users to investigate and visualize the connections that exist among members of a particular group. Our attempts to contact the service provider and get access and a permission to use such data have failed. Therefore, in order to discover what connections existed between the members of *Teacher Dilla's English Lessons*, participants were invited to name other members of the group that are personally connected to them (i.e. their 'friends') in the social network. Further data was elicited through purposive sampling, asking contacts to share their network information with the researchers. This call yielded to more data - and although they are far from being representative of the whole network of the page - they provide an interesting insight into the means of how connections are formed among group members and with the wider Facebook community. As Holland (2014, p.71) says, "networks provide a precise snapshot of the interactions of agents in a complex system at a given point in time". Therefore, looking at this partial network will provide us with an understanding of how information can travel through the network and disseminated even outside the boundaries of the online community.

The data had to be prepared for analysis by creating a network file that was readable by a network visualizing and analysis tool, *Gephi*. First, a table was created with two columns: the first contained the name of a person, and the second the name of their contacts in the network. The names were then substituted by numbers to a) avoid any possibility of different spelling formats creating two nodes of the same person, and b) to maintain the anonymity of the research participants. The final network file was analysed by Gephi and visualised by using the Force Atlas 2 algorithm, which - like a magnet - makes connected nodes to attract and those with no connection repel each other, creating a spatial map of the network.

Content analysis

As a further examination, we also studied the content of the posts which generate the most responses and which have the largest reach of readership through sharing by members. The data for this analysis was retrieved from the analytics provided for the group owner by the social network operator. Thematic coding of the posts helped in the categorization and a word frequency analysis was also employed to reveal the most important keywords that have the potential to draw members' attention.

Findings

The data show that members of *Teacher Dilla's English Lessons* are mainly young adults, a demographic generally considered to be active internet and social media users (see Figure 1). Their educational level indicates that most have higher education degrees - as would be expected from teachers - but only a few have pursued further studies after their initial training.
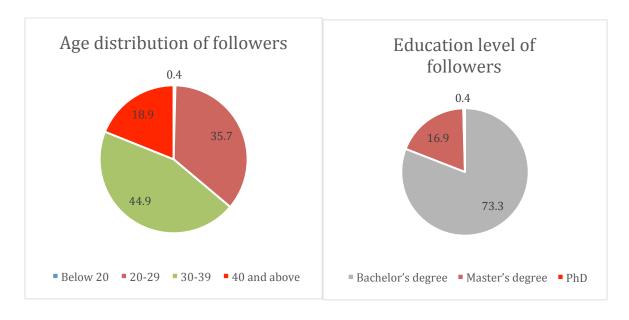

Figure 1: Age and education level of followers (n=238).

A large majority of the participants are connected to education and language teaching (94.58%) in one way or other and work as language teachers (80.8%), some as teacher educators or lecturers (1.25%), and there are a few student teachers who are still in their professional training (7.03%). A small minority of members (5.42%) are either the group owners' personal contacts or they are parents of pupils in Teacher Dilla's classes and joined the page to follow what is

happening in their children lessons. However, there are teachers in the community, whose children attend Teacher Dilla's classes as 20% of the responses indicated that one of the reasons for joining the community is that they wanted to keep track of their children's progress in English language learning.

Most participants (89.6%) indicated that they are members for the benefits this particular community can offer: teaching ideas and resources they can use in their own lessons. They also valued the opportunity of learning from other members (72.9%), although the settings in the page does not allow open sharing and communication among members. An even small percentage of participants (35.8%) expressed that they like belonging to a professional learning community. More telling are answers which specifically identify why certain participants joined the community; they are all pointing to Teacher Dilla as the main motivation, which is not surprising since in 2016 she won 3 awards by the Kota Setar District Education Office, Malaysia: 1. 21st century teacher award; 2. Best teaching practices award; 3. Innovative award: documenting effective educational practices. Comments like "I find her teaching ideas very creative and innovative" or "I like reading about her unconventional methods of teaching" are a testimony that participants appreciate the value generated by the page, even if their participation is limited to reactions in response to Teacher Dilla's content. Some even added that the reason why they joined the community is because they "want to be inspired" or the posts give them "motivation during the difficult moments of teaching and educating".
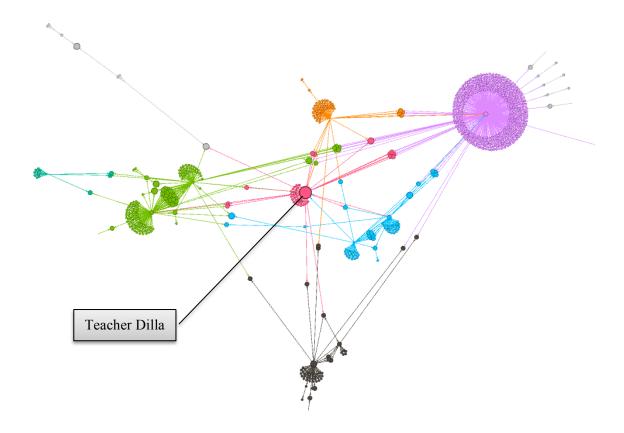
Despite the strong motivation, many members of this professional group tend to remain in the background and they do not respond to content or other members' comments on the page. This raises questions whether this *Teacher Dilla's English Lessons* can be considered as an online CoP.

	Never	**Sometimes**	**Often**	**Always**
Reactions to posts by using emoticons (like, laugh, angry, etc.)	1.7	37.9	30.4	30
Comments on posts	37.9	50.4	8.8	2.9
Responses to other users' comments on posts	57.1	35.4	5.8	1.7

Table 2: Participant contributions (%) on Teacher Dilla's English Lessons

Network structure

Figure 2: The core network structure of Teacher Dilla's English Lessons community

Teacher Dilla

We elicited a network of nearly 1000 individuals (nodes) through our survey. From a broader perspective, the structure of the network has a core-periphery structure. About 20 percent of the respondents belong to a sparsely connected periphery: each individual in the periphery knows only one person within the page of *Teacher Dilla's English Lessons*. This periphery is disconnected from the core of the network that comprises 80 percent of the respondents. We depict the core of the network in Figure 2. We can observe that the core is well-connected; if we follow the links starting from any given node in the network, we can reach any other node within at most 6 steps. The average number of steps we need to make (called 'average distance' in network analysis jargon) is only 2.87. While these network measures indicate a large close community, Figure 2 suggests that we can differentiate separate sub-communities within the core. Each sub-community is highlighted with a different colour and is organized around one or two central nodes that are connected to most individuals within their respective sub-community.

The centre of the network is Teacher Dilla's node, not surprisingly, who connects all the major hubs together. Therefore, we may reason that *Teacher Dilla's English Lesson* has grown its membership and outreach not directly as a result of the owner's own network connections, but through her connectedness to some major hubs that have the potential to attract their own contacts to the community. Growth seems to be directly linked to the network size individual hubs have within and outside of the community.

Furthermore, using the information from our survey, we identified who the central characters of the network are within the communities (see Table 5). It is clear from the data that all central nodes are from Malaysia, and almost all of them are teachers. In addition, they all know Teacher Dilla personally, which leads us to believe that the strength of the network and its reach is determined by the offline connections the group owner has with the most influential hubs.

Table 3.
 Demographics of the central nodes (TD=Teacher Dilla)

ID	Number of neighbors	Profession	Country of Origin	Education
90	31	Teacher	Malaysia	Bachelor's degree
591	41	Teacher	Malaysia	Bachelor' degree
355	49	Teacher Trainer	Malaysia	Master's degree
TD	52	Teacher	Malaysia	Master's degree
1118	55	Teacher	Malaysia	Bachelor's degree
1090	72	Teacher	Malaysia	Bachelor's degree
397	111	Homemaker	Malaysia	Bachelor's degree
967	441	Teacher	Malaysia	Bachelor's degree

Most popular posts

To get a better idea about the nature of the community organized around *Teacher Dilla's English Lesson* page, we analyze the content of the most popular posts. Facebook provides an interesting statistics called the 'Total reach' of a post which can be used as a measure of popularity. Total reach counts the number of individuals who had the possibility to see a given post, either because they follow *Teacher Dilla's English Lesson* or because someone from that community has shared the post (i.e. their contacts who may not be members of the community also have a chance of seeing it and this may even prompt further shares and a longer chain of post sharing). The 50 most popular posts have an average total reach of 58,982 (the highest being 312,503), which means that they have had the potential to be viewed by almost three times more people than there are members in the community! Most of these posts contain some photos (89%), and a few videos or links. Figure 2 shows a word cloud of the text of 50 most popular posts. The most frequent words are "students", "English", "topic", "activity", "year", "writing", "teachers". This suggests that the most popular posts describe some class activities that may be useful resources for other teachers or maybe of interest for parents whose children attend Teacher Dilla's lessons.

Figure 3: Word cloud based on the most popular posts

Discussion

The data we collected about the *Teacher Dilla's English Lesson* Facebook page clearly suggest that it is a Community of Interest, rather than a Community of Practice. Members joined the group not to discuss their professional interests, but to collect ideas, materials, and lesson plans that they can use in their own contexts. The fact that they are not allowed to generate content

allows them to have all the benefits of membership without any pressure to contribute. They can remain in the background without the need to put themselves forth and add visible value to the community. Yet, they play an important role. As Portes and Sensenbrenner (1993, in Penuel & Riel, 2009, p. 129) state, "it is through one's ties to others that one gains access to particular expertise and resources". Thus, although members do not generate content, they actively contribute to its dissemination by means of sharing information through their personal / professional networks that reach far beyond the boundaries of the community.

The members' activity – sharing and disseminating content – adds value to the community (Smith, Hayes, & Shea, 2017) and it allows content created by Teacher Dilla to reach – in some cases - over a quarter of a million people. Such participation is natural for teachers as sharing resources is "embedded in teachers' everyday activities" (Tseng and Kuo, 2014, p. 44) especially when such content is available on a social networking site that blurs the division of the personal and the professional selves. Thus the more members the community has, the more widely content can be shared.

This partly explains why the community is on a social networking site and does not use a different platform, for example, a blog. Although the operations of the group resemble very much that of a blog, i.e. content is created by the owner, readers can respond to and share content, send personal messages to the content provider, etc., there is a big difference between the affordances a social networking site, such as Facebook, and what a blog presents. DiMicco and Millen (2007, p. 386) point out that "[a]s social networking sites become more popular in general, these sites are likely to become an integral part of the workplace", which means that they can provide easy access for both personal and professional activities. Members, who are mainly classroom teachers, therefore do not need to switch between different platforms, use multiple usernames and passwords, and overall save time by finding information they need in one place. Furthermore, a dynamic social networking site provides more opportunities for growth of the community and information dissemination than a more static blog.

It is without doubt that the page owner benefits from sharing about her own teaching in a public online community and there are two ways in which the page contributes to Teacher Dilla's gains. Firstly, running the community has an impact on her *own professional development* through making her teaching visible to others. This creates an opportunity to reflect on her own classroom activities and materials, and also provides a forum to elicit feedback from members on her professional practice. Teaching can be an isolated profession, but Teacher Dilla found an effective way to invite the whole world into her classroom by sharing her experiences with fellow professionals who, in a sense, form a community of support. Secondly, by generously sharing her resources (activities, materials, lesson plans) she may try to "maximize [her] reputation and welfare through helping others and getting a reciprocal return in the future" (Tseng & Kuo, 2014). It is clearly indicated by some members that the reason why they joined

the community is Teacher Dilla herself, whom they consider to be an inspirational teacher. Whether knowledge sharing is intrinsically rewarding for Teacher Dilla or if she is motivated by the prospect of extrinsic acknowledgment and reciprocity from the members (Bock, Zmud, Kim, & Lee, 2005) is to some extent irrelevant. What matters is that both members and Teacher Dilla can gain from participating in the community.

Conclusion

In this paper we examined how one Malaysian EFL teacher can generate global interest through her online activity on a social networking site. Our research highlighted that content created in one specific context can be relevant and interesting across multiple geographical and cultural settings and has the potential to reach a significantly large audience through the power of intricate personal and professional networks of its members. We also discovered that members who are likely to participate in such communities are likely to be young adult professionals who view networking sites as multi-functional tools that serve both private, personal, and at the same time public and professional purposes.

A successful online community does not necessarily need to be a fully functioning Community of Practice. In fact, it would impossible to maintain a Community of Practice when numbers grow beyond a level that ensures equal participation for all, thus the loosely connected network of a Community of Interest better serves the purpose of sharing one's practice and ideas openly, especially if fellow professionals see the value in the content that is shared. Yet, for successful dissemination it is important that such network has a core-periphery structure with influential hubs around the centre – in our case Teacher Dilla – as they contribute to the dissemination of information and content and ensure maximum reach.

The research project also demonstrated that bottom-up, grass-root initiatives in education can be very successful and that every teacher can have significant influence when they believe in themselves and share their practice with their peers. Similarly to Edward Lorenz's butterfly effect, i.e. 'the flap of a butterfly's wings in the Amazonian rainforest has the potential to create a tornado in the American Midwest', one primary school teacher has the potential to influence classroom practice thousands of miles away by opening up her own practice and sharing her ideas with the world.

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