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Vocaloid in China: Cosmopolitan music, cultural expression, and multilayer identity

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Abstract
Addressing the notion of user-centered research, this study examines how Vocaloid, the Japan-developed voice synthesis software and its personified virtual singer were contextualized in China. It explores how the Chinese Vocaloid character LUO Tianyi, who was initially introduced as a girl from outer space, has been reconstituted into figures that were both locally and nationally converged into Chinese culture. In relation to broader theoretical discourse regarding the cultural impact of globalization on local identity, this study also attempts to unpack the Vocaloid practices in China in terms of cultural expression, cultural interpenetrations, and power negotiation. It tries to grasp prosumers' subjectivity in constructing the image of LUO Tianyi, and to interpret it as a dialectical organism resulting from the ongoing negotiation within their multilayer identity in playing different social roles.

Keywords
Chineseness, cultural expression, cultural identity, globalization, Vocaloid, world music

Introduction

In the era of globalization, academics have reviewed intercultural media and popular culture during the past two decades. In relation to East Asia, a rich body of academics on the Korean Wave (Chua & Iwabuchi, 2008; Huang, 2011; Kim, 2013), Japanese popular culture (Iwabuchi, 2002), and Chinese movies (Wu & Chan, 2007) have emerged from a cross-cultural flow to discuss the formation of certain popular culture constructs, influences, and echoes that exist in a typical cultural identity. Most of the above studies have analyzed the globalization of popular culture on the basis of institutional, national, or strategical policies, and this approach has shed light on how global

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corporations and institutions significantly impact consumer cultural identity through capitals. However, the perspective has neglected the fact that consumers themselves have been somewhat empowered in defining, rewriting, and locating their own cultural identities in regard to the contextualization of foreign cultural products.

With a user-centered approach, this article utilizes China as a case study to explore how Vocaloid, a sonic synthesis music software with virtual figures of characters, has been contextualized as it has been introduced into different parts of the world. By carefully examining how the Chinese Vocaloid character LUO Tianyi, who was initially introduced as a non-Chinese girl from outer space but reconstituted into a figure affiliated with Chinese culture, this article attempts to shed light on the dynamics of cultural globalization. More specifically, by investigating the cultural practices of Chinese "prosumers," a term used to refer to participating consumers who engage in both cultural productions and consumption (Condry, 2011a; Jenkins, 2006), the article hopes to illustrate the process in which they make sense of their global and local cultural identities when producing Vocaloid music. Informed by theoretical discourse regarding the cultural impact of globalization on local identity, this study also interprets the success of Vocaloid practices in China in terms of cultural expression, cultural interpenetrations and power negotiation. Echoing Tomlinson's (2003) thesis of globalization as a force to produce cultural identity, the article additionally calls attention to the prosumers' complex subjectivity as manifested by their attempts to construct the image of LUO Tianyi, which refutes the notion of a simple hybridization of bicultural identities (Arnett, 2002). Instead, this article points to a dialectical process that involves continuous negotiation within multilayer identities. I argue that local cultural expressions are not only shaped by the force of globalization or the desire for self-recognition but also by the complex interactions that take place between a person's multilayered identity and the social institutions with which he or she connects.

Context and methods

In February 2016, the famous Chinese singer YANG Yuying appeared on the Minor Chinese New Year Gala hosted by Hunan TV, and there was another young girl in a red Chinese-style dress who sang along with her. Blinking her bright green eyes, the girl named LUO Tianyi performed the song "Hua Er Na Ji" (花儿纳吉) with Yang and sent her New Year blessing to the audience around the country. Singing, dancing, and giving a blessing are common scenarios at the New Year Gala show, but they were different in this instance because of the appearance of LUO Tianyi, a comic-like virtual singer who does not really "exist" in the real world. Labeled as the "goddess of the post-90s and Nijigen" (90后/二次元女神) by the Gala hosts, LUO Tianyi has become a veritable virtual idol among Chinese adolescents.

LUO is featured in Vocaloid, which was developed by the Japanese company Yamaha and was originally the brand for a series of sonic synthesis software that allowed users to synthesize melody and lyrics with the digitalized voice provided by the software. There is not much technical difference between Vocaloid and other composition software except for the vocal library offered by Vocaloid. With access to the database of voice sources in the vocal library, users are able to compose and orchestrate melodies with the software and input lyrics to make the "voice" sing them. In other words, every vocal library can be viewed as a virtual singer capable of synching with the music one puts into the track. Facilitated by this specific technology, Yamaha personified every vocal library as a comic-like virtual singer, and thus the Vocaloid family containing several singers was born. Relying heavily on input from users, the Vocaloid characters are sustained by "the energy of a

community of people who created her songs and her music" (Condry, 2011, p. 12). As a result, the identities of these characters are defined and constructed not only by the original designer but also largely by the music practices of the user, who technically has the ability to embed his or her own self-expression and identity into the Vocaloid production on an equal basis with all other users.

One of the program's superstars is a diva named Hatsune Miku, and she has gained notable popularity in both the East and the West. As the most successful virtual idol in the Vocaloid family, Miku has triggered a global discourse on technology and culture. Most of the studies on Miku and Vocaloid's cultural impact have tended to focus on the new possibilities of collective intelligence and grassroots creativity offered by Vocaloid, which is an open-source product that anyone can use to produce basically any kind of music (Bell, 2015; Condry, 2011). However, few have paid attention to how and why Vocaloid and its characters bring forth these new opportunities for intercultural music production. More importantly, as Vocaloid has expanded into various local markets, the question of how it adapts to different cultural contexts has not been adequately considered. As mentioned, Vocaloid characters only make sense when users use them in specific cultural practices. Although not completely displacing institutional manipulation, the participatory nature of Vocaloid production allows us to better understand how local users wrestle with issues related to their own cultural identities when consuming the cultural image of a foreign virtual character. Hence, it makes sense to focus not merely on institutions as the agents of contextualization but also on the users who directly experience the real tensions between the global and the local, the dominant power and grassroots opposition, and capital and labors.

This study is based on data collected from 2-month observations of online participation in the Vocaloid community and 11 in-depth interviews with Chinese Vocaloid prosumers. The observation contains two parts. First, to gain a general understanding of Vocaloid as a technology and software, I tried and learned to use Vocaloid with a friend who was an amateur Vocaloid producer. It took only 2 days to learn the basic functions of the software, but the tuning of Vocaloid singers was extremely difficult. It is particularly difficult to make the singers pronounce naturally by adjusting the parameter. After the participation of production, I chose Bilibili, which is the largest platform for Vocaloid productions, as the site for my research. Facilitated by the special bullet-commenting technology embedded on Bilibili, I was able to track viewers' comments while simultaneously watching the music piece. For the interviews, the participants included prosumers who wrote songs and had Chinese ethnic features and those who wrote in various other music genres. The objective was to examine how practitioners understood and constructed LUO Tianyi's cultural identity with conscious or unconscious subjectivity. Abundant textual analyses of the songs were also conducted to support the interview data, and the final result is a comprehensive overview of how global and local cultures have manifested in Vocaloid products.

Virtual and universal: "Vocaloid" as identity

To comprehend how Vocaloid has so easily and successfully localized itself, one must understand the unique qualities that may have helped the software become a "universal" cultural product. In contrast to the common phenomenon in which a human singer could emerge as an international superstar, one of the most outstanding and obvious features of the Vocaloid singers is their digital nature. The digitalization of the voice makes source-openness possible worldwide, and the "outer space" design of the character opens up the potential to construct a global identity for Vocaloid characters that transcends geographical boundaries and cultural barriers. By minimizing cultural

specificities, Miku and other Vocaloid characters are positioned to be universal and allow users in any cultural setting to easily project their own cultural identities onto them.

One of the ways to reduce the cultural specificity of Vocaloid is to computerize the human voice. As mentioned earlier, each Vocaloid singer has its own vocal library, and its source voices are initially recorded from actual human singers. These sources are then digitalized as sonic data and saved in the vocal database for synthesis. This process of depersonalization reduces the cultural texture and rich subtleties carried by the human voice and works to "simulate, mask, or transcend identities" (Utz & Lau, 2013, p. 2). Without accents, natural pitch, and emotions, the computerized voice is stripped of most socio-cultural indicators except for gender and perhaps age.

What happens when Vocaloid travels globally? For one thing, it masks the identity of the human singer who recorded for the vocal library. The human voice may reveal one's nationality or race, but a digitalized voice is unlikely to provide such clues. In other words, by technically altering the original human voice, the Vocaloid characters make themselves acceptable to any ethnicity or social group in the world. On another level, however, the digitalization of the human voice empowers users to construct the character's image in ways they see fit. Put another way, the cultural meanings of the Vocaloid characters are not defined by their original modules but created by the cultural practices of their users. Viewed from this perspective, Vocaloid may be a perfect example of the "reflexive globalization" that reflects and encourages a multidimensional cultural flow on a global scale (Utz & Lau, 2013).

This kind of user-defined characteristic of Vocaloid is somehow manifested by the company and designers, as evidence has suggested that the Vocaloid characters are deliberately designed to be devoid of any apparent cultural specificities. The public profile of each virtual singer contains purposely limited information, although these brief biographies are based on a common theme, namely, the "outer space" identities of the Vocaloid family members. According to Vocaloid's official website, these virtual singers are not affiliated with any nationalities or racial groups but are all from a secret planet in outer space. Without any knowledge of human language, these characters can only communicate with people through music. The diminishment of language initially seems tricky because the vocal library actually works by composing linguistic vowels and diphthongs so that the virtual singers are able to pronounce the lyrics put in by the users. In fact, every vocal library has a language preference due to technical limitations. For instance, the vocal library for Miku only contains vowels and diphthongs for Japanese. Given the fact that language still appears to be important in the Vocaloid products, the claim of outer space origins serves as a strategy to reach a global audience. Presented as visitors from outer space, the characters will not divide their targeted audience by country or region. To the contrary, Vocaloid envisions the entire globe as its stage. Traditional intercultural and international flows become a planetary one, which turns the dialogue from the national sphere into a global sphere.

The deployment of such strategies and the universal qualities of Vocaloid have encouraged a boom of user-generated productions in various regions of the world, which partially explains the global success of Miku. Vocaloid as a synthesis software can appeal to amateurs who have only basic knowledge in music or instruments, though the product apparently requires extensive professional knowledge and skills to produce high-quality music. Yet the software's basic functions, which resemble other products such as Garage Band, have facilitated grassroots productions of Vocaloid music. Among prosumers, the quality or skills of using Vocaloid is called "tuning" (调教). This term refers to the level of composition and mixing of instruments and also to the skill of "teaching" Vocaloid characters how to "sing," which includes how they pronounce the lyrics and

how they express themselves as they perform the song. In this sense, a producer's own thoughts, sentiments, and even cultural identity are not only expressed by the music or lyrics but also largely by how they "teach" the characters to sing. Nevertheless, considering the language limitations mentioned earlier, one single vocal library is not capable of supporting all language varieties. After Miku's success, Yamaha began to develop vocal libraries in various languages to expand into different local markets. The ways in which prosumers in diverse cultural settings choose to use the software and configure the characters vary greatly from region to region. After all, the new Vocaloid characters represent an exotic product, and its entry into the local market is buttressed by foreign capitals and the global appeal of Miku's reputation. As contemporary music practices are becoming increasingly mixed across cultures during the era of globalization, the question of how Chinese practitioners, especially Chinese Vocaloid fans and producers, contextualize Vocaloid characters acquires a sense of urgency for media scholars to address. Although the seemingly universal qualities of Vocaloid make it easy for local users to construct their imagined identities, the interactions between users and Vocaloid/Miku don't really take place on an even playing field. For instance, the Japanese Animation-Comics-Games (ACG, which refers to the Japan-origin subculture related to the consumption and fan-production of animations, comics, and games) culture is one of the most important forces behind Miku. The contextualization of Vocaloid is thus intricately intertwined with constant negotiations in a system of foreign cultures, the cultural subjectivity of users, institutional power, global and local capitals, and the flow of technology (Appadurai, 1990; Bennett, 2003; Giddens, 1990; Tomlinson, 2003). As such, it would be too simplistic, naïve, and indeed dangerous to embrace the contextualization process as a celebration of multiculturalism (Iwabuchi, 2008), or to criticize it as another round of McDonaldization (Mackay, 2000) without examining specific cultural practices in great detail.

Cultural identity: a product of globalization

The impact of globalization on cultural identity has been hotly debated, and views in the scholarly community are diverse and divided. The key issue among academics deals with the dichotomy of homogeneity and hybridization. Whether the process of globalization undermines local cultural identities or gives birth to new types of communities and identities has repeatedly been at the forefront of the debate. On one hand, globalization is credited with increased mobility, the process of individualization, and the ongoing embedding and re-embedding in social life (Beck, 2000, 2001; Giddens, 1990). Taking this positive view of globalization, some scholars have argued that the forms of new groups, the family, and the community constantly change and that identity is not as "fixed" in the post-industrial era as it was in more conventionally oriented social structures. The group-based identity, as many have suggested, has been transformed into social fragments in which traditional values and cultural conventions are easily erased (Beck, 2000, 2001; Giddens, 1990; Mittleman, 2000).

On the other hand, opponents of globalization emphasize unbalanced power relations in the world and view the fragmentation of cultural identities as an unfortunate result of Westernization and cultural homogeneity (Schiller, 1975; Shepard & Hayduk, 2002). Although the notion of cultural imperialism has been criticized for its insufficient appreciation of cultural resistance and the importance of agency in cross-cultural encounters (Giddens, 1990; Liebes & Katz, 1990; Lull, 2000; Thompson, 1995), there is still an academic sense of lingering pessimism about the impact of globalization in the cultural sphere in terms of surrendering to a "universal" consumer culture

that has its roots in the Western countries, especially in America (Tomlinson, 2003, p. 270). As globalization has blurred the cultural boundaries that were once set mainly by geographic distance, it has also displaced people into a more "market-driven, branded homogenization of cultural experience," which seems to lead to a more general or so-called "global" identity that extends beyond locality-defined cultures (p. 270).

The tendency of "being globalized" may be more visible in adolescents who were born and have grown up in a world being transformed by globalization. As some scholars have argued, those who live in the advanced stages of globalization are more likely to shift their identities into the market-oriented "global" identity (Bennett, 2003; Inglehart, 1997; Jensen, 2003). Others have coined the concept of "bicultural identity," which suggests that contemporary adolescents everywhere share a sense of split identity. As Arnett has argued, these younger generations may retain their local identities to a certain extent, but they also embrace a global identity because of their firsthand and secondhand exposure to cultures other than their own (Arnett, 2002). Yet the question of whether there is a dominant cultural identity in the bicultural identity is largely left unaddressed. Furthermore, how younger generations relate to culture and express identity in cultural practices in fields such as popular culture, where market and consumer culture play a crucial role, has also been neglected. If globalization is really destroying cultural identities and transforming them into a more market-oriented and collective one, it seems reasonable to assume that cultural products such as films and music would be more homogeneous, universal, and commercialized than they were in the past. This anxiety over losing local culture and individual traditions in cultural production is particularly evident in the music industry, especially when digital technologies like voice synthesis are gradually replacing traditional music materials, including conventional ethnic instruments and performances (Alter et al., 2015). However, a small number of researchers have continued to pursue a line of inquiry associated with the critics of cultural imperialism, claiming that the application of technologies has made forms and styles of culture creep toward hybridization rather than homogeneity (Born & Hesmondhalgh, 2000).

Taking neither the view of cultural hegemony nor hybridization, Tomlinson (2003) seems to stand at the intersection of the field's competing discourses and views local identity as something interacting dynamically with globalization. Differing from the anti-globalization camp, Tomlinson (2003) does not see the remaining local identity (if any) merely as victim of and in resistance to globalization. Rather, he argues that local identity, which he defines as "the self and communal definitions based around specific, usually politically inflected, differentiations," is actually produced and proliferated by the process of globalization (p. 272). The concept of cultural identity is not a psycho-social recognition of the meaning of self but a complex dimension of social life that interplays with both the general progress of globality and the force of localization from institutions, especially nation-state sectors. In other words, it is globalization itself, which Tomlinson views as parallel with institutionalized modernization that organizes the once unconscious cultural identity into a more formal and socially policed concept in relation to more complex power struggle. Rather than erasing local culture, globalization reminds people of its existence by emphasizing the meaning of "specificity" and "differentiations." As many other discourses have also suggested, it merges the local and national identity into more multicultural and cosmopolitan sensibilities (Arnett, 2002; Tomlinson, 2003).

Tomlinson's argument provides a useful analytic tool to examine the case of Vocaloid in China. After the first Vocaloid-China character LUO Tianyi was introduced, it gained an impressive popularity among Vocaloid fans. Chinese Vocaloid productions, including music and promotional

videos, were viewed 65 million times on Bilibili in 2015. By the end of the year, prominent singer Yuchun Cris Lee performed one of LUO Tianyi's fan-made songs on TV. All these developments have led to the unavoidable conclusion that a foreign product, with its global and universal claims, became a spectacular commercial success in the Chinese market. How do we then make sense of the enormous popularity of LUO Tianyi, a cultural product with a Japanese origin that was embraced by the mainstream media in China as a "goddess of the Chinese youth"?

Vocaloid in China: cosmopolitan music and Chineseness

The Chinese Vocaloid project was headed by Yamaha, which collaborated with the Shanghai-based company Henian as its local agency. The project's first character, LUO Tianyi, was introduced in 2012 and followed by other characters such as YAN He and YUE Zhengling. Like other members of the vast Vocaloid family, Tianyi and other Chinese characters are presented as visitors from outer space. The basic features of Vocaloid's Chinese edition include the digitalized voices, the open-source vocal library, and the universal quality of the characters. Meanwhile, a new design has been added to the LUO Tianyi character. For instance, she has the special skill and superpower to "resonate" with human emotions and sing the songs one's heart desires. The so-called special power is apparently not any kind of technical improvement to the software, but points to an encouragement of cultural expression or self-expression. Modifications such as this one in the Chinese Vocaloid project allow users a greater degree of agency to further define and develop the characters. Not surprisingly, Chinese users who range in age between 15 and 25 years old have reconstituted LUO Tianyi from an outer space character with Japanese origins into a personality with distinctive local and traditional Chinese qualities.

Much of LUO Tianyi's Chineseness is easily discernible in her Chinese-style songs, which make up nearly half of all productions on Bilibili. In fact, the genre "Chinese-style" (中国风), which is related to the classic Chinese composition as well as the use of Chinese instruments, is not new to the Chinese audience. One of the most popular contemporary singers, Jay Chou, is best known for his Chinese-style songs that combine elements of Chinese traditions with Western music genres such as R&B. In his case, the emphasis on Chineseness is likely intended as a marketing strategy to help him, a Taiwanese singer, enter the mainland China market without obstruction from the government (Fung, 2008). It should be noted that in mainland China, there is also a subculture community that embraces the "ancient-style" music (古风). Largely immune from the influence of Western music, the ancient-style music emphasizes its indigenous qualities and other features associated with Chinese tradition. For instance, the lyrics are usually written in classic literary style and make reference to well-known classic poems, operas, historical events, personalities, or documents. In contrast to Jay Chou, who seems to be more interested in exploiting "Chinese-style" as a marketing gimmick, genuine fans of ancient-style music are truly passionate about traditional Chinese culture.

If we envision Jay Chou as representing one end of the spectrum and the die-hard devotees of the ancient-style music representing the other, then Tianyi's Chinese-style music seems to straddle in the middle of these two extremes. On one hand, Tianyi's Chinese-style music is clearly more Chinese than Jay's work; on the other hand, the incorporation of various foreign music genres, including R&B, rock & roll, and electrical music, makes LUO Tianyi's music much less genuinely Chinese than the purely indigenous, ancient-style Chinese music. A cursory survey of the 100 most popular songs released in 2015 for LUO Tianyi on Bilibili shows that nearly half of the songs fall

in the category of "Chinese-style" music based on their Chinese themes. The lyrics and melodies may differ, but they all share a strong sense of Chineseness. One of the most famous songs, *Sun Quan the Emperor* (权御天下), received over 2 million views within the next year. The song's title alludes to the story of SUN Quan, a historical Chinese figure who lived during the Three-kingdom Period. The lyrics of the song refer to the episode whereby SUN Quan and his kingdom were fighting for survival against the invading army from the Kingdom of Wei. Focusing on one key battle during the conflict and SUN Quan's leadership, the lyrics were composed in a classic Chinese style that is difficult to understand for even native Chinese speakers unless they are familiar with Chinese history and rhetoric conventions as illustrated by the following example:

君不见 军赤壁纵野火 铁索连环

Don't you see? At the Red Cliff, the army is setting fire on enemy's chained warship.

也不见 御北敌 联西蜀 长江上鏖战

Don't you see? On the Yangtse River, the army is defending the enemy from the North, allying with the friends from the West.

继遗志 领江东 屹立于 神州东南

Carrying on the legacy, he is leading Jiangdong to stand up in the Southeast of China.

尽心力 洒英血 展伟业 剑气指苍天

With all his effort and blood, his grant achievement is like the sword pointing toward the sky.

(Lyric by ST, 2015)

For people well versed in Chinese literary traditions, the writing style here shares an unmistakable affinity with *Ci* (词), a literary genre popularized during the Song Dynasty (960–1279). By using many idiomatic expressions and historical allegories, the song produces a strong sense of "Chineseness" that can remind anyone of Chinese traditional culture, whether he or she is familiar with the history. Furthermore, the lyrics also highlight certain traditional Chinese values such as conscientiousness, responsibility, and tolerance. The last two sentences express the idea that to be an emperor is to suffer from countless feelings of loneliness and to take any failure or success for granted. These lyrics represent the traditional Chinese value of *Badao* (霸道) in ancient the Chinese politics and Fa philosophy, which is very different from the democratic tradition in the Western politics.

However, lyrics aside, there is much hybridization of the East and the West in the melody and instrumentation. The Chinese tag consists of a traditional Chinese *pipa* and bamboo flute, while the influence of music genres such as Japanese-rock (J-rock) is evident in the use of fast drums kits and an electric guitar. Although one is immediately struck by its Chineseness, the song was not produced in an entirely Chinese format. As one of the interlocutors pointed out:

[Sun Quan the Emperor] has a sense of J-rock. The tempo is fast and the drums are quite annoying. It is not a complete Chinese-styled song. It's not surprising though. LUO Tianyi, as well as the Vocaloid, are still developed by Japanese after all. (Personal Interview, 2016)

Figure 1. SUN Quan casting LUO Tianyi in *Sun Quan the Emperor.*

The song's music video was made by the same group of producers and demonstrates a hybridization of the Chinese traditional paper-cut art and Japanese comic style. Interestingly, historical characters such as SUN Quan and ZHOU Yu are not presented by their existing stock images as when they are portrayed in films or TV dramas. Rather, they are all played by Vocaloid characters, including LUO Tianyi and other singers such as Miku (Figure 1).

Another famous song, *Hua Er Na Ji* (花儿纳吉), which was the one performed at the Minor Chinese New Year Gala, can be seen as a hybridization of traditional Chinese folk songs and electric music. The title uses a dialect of the minority *Qiang* (羌), and it means "bless you as happy as flowers." The melody contains a strong ethnic element by incorporating a great number of the features one would find in Guangxi-style folk songs. *Hua Er Na Ji* is performed as a duet between two young people madly in love with each other. In the lyrics, the two Vocaloid singers, who represent the lovers, address each other as "elder brother" and "little sister." One rarely finds lovers calling each other "brother" and "sister" in other cultures or even in contemporary China, but these are typical terms of address used by lovers in many regions of China. For our purposes, what is interesting in this case is the fact that the song uses ethnic cultures and folk music in its construction of Chineseness and the two singers, LUO Tianyi and YAN He, are presented as Chinese folk artists. Nevertheless, similar to *Sun Quan the Emperor*, the instrumentation of the song is very much influenced by electric music, R&B, and disco; drum kits, electronic music synthesizers, and other Western instruments are used as important components in the music composition. In the middle of the song, there is even a Jazz-style piano solo portion.

The process of hybridization as illustrated in this case provides additional empirical evidence for our understanding of the concept of "aesthetic cosmopolitanism," a term defined in some discourses as "a cultural condition in which late modern ethno-national cultural uniqueness is associated with contemporary cultural forms" (Regev, 2007, p. 125). In terms of music, it means the hybridized and modernized expression of the universal format of music productions that also emphasizes national uniqueness at the same time (Regev, 2011). For the categorization of music genres, Regev (2011, p. 561) has proposed three labels: national, exotic, and cosmopolitan. As he has observed, although specific cultural choices vary in different contexts, the basic logic for producing cosmopolitan music is to establish a transnational dialog between the mainstream music industry and, in the most cases,

the non-Western indigenous music industry. For instance, Turino (2008) has discussed how Zimbabwe music, with genres that were once very local, has been allured by stardom, the mainstream market, and the music industry and has thus adopted cosmopolitan cultural formations in terms of genre and forms. As he has highlighted, the cosmopolitan interest in music production has generated complexities in hybridizing the cultural expressions for cultural products, and at the same time, has also encouraged indigenous participation in the production of music.

Despite its claims about sensitivity regarding local culture, the production of cosmopolitan music inevitably succumbs to the dominant force of the mainstream value system intricately tied to the modern West. To put it simply, the very attempt to link local culture to the world is itself an admission that the local is an organic part of the global and any expression of local identity should be viewed as an evidence of the omnipotent existence of the "global identity." Seen in this light, the concept of "bicultural identity" suggested by Arnett (2002) seems to be an appropriate analytical tool when interpreting cosmopolitan music, especially in the case of Vocaloid, whereby the prosumers are mostly youths who grew up during a time period that witnessed the acceleration of globalization and for whom, the simultaneous identification with both global and local identity seems natural. Conversely, the youths' views and acceptance of Western culture are also conditioned and colored by their upbringing in indigenous cultural traditions. However, interpreting their cultural practices simply as the result of bicultural identity risks stacking within the dichotomy of globality and locality. The desire on the part of local culture to be acknowledged globally produces a double-dimensional subjectivity, while beyond such a dichotomy is the tension between global and local capital and the controlling power conducted by the nation-state. In different power relationships, Vocaloid prosumers identify themselves as playing diverse social roles. As the article shall demonstrate in the following section, hybridized music production is the result of complex negotiations between multilayer identities in one's social life rather than a reflection of only bicultural identity.

Multilayer identity: beyond the global/local dichotomy

As Tomlinson (2003) has emphasized, cultural identity is not a "zero-sum game" or a fixed concept, but rather, it is complex and fluid, especially in an era of globalization. On one hand, one's cultural identity is unavoidably globalized as cultural convergence has become the main theme in the symphony of globalization. On the other hand, although globalization has threatened traditional identity, the constituting components of that identity, including religious beliefs, class standing, and social belonging, remain strong for people living in a stable social structure. This point has been amply illustrated by Straubhaar and La Pastina (2007) in their research on international television. Just as many conventional social groups have been fragmented by the collapse of geographical boundaries, new types of groups and communities have also come into being. The overlapping of these communities entails both conflict and mutual accommodation. Despite the ever-increasing influence of globalization on societies and social structures, cultural identity should still be considered multilayered rather than hybridized. As Straubhaar and La Pastina (2007) have noted, "Hybridity is a long-term process in which all identities are constantly changing" (p. 227). Hence, the idea of levels of identity can be used as a heuristic device for understanding the way that people seem to experience identity. Therefore, one's cultural choices and practices are still influenced mostly by the multilayer identity, which has become even more complex than it was because of the increasing mobility and individualization brought about by the process of globalization (Beck, 2001; Straubhaar and La Pastina, 2007). As Straubhaar's research on world television and its viewers has shown, an audience's multiple identities in different cultural groups and fields

of activity affects its media choices, which are largely still based on members' self-identity with the particular layers of their social existence such as class. In the case of Chinese Vocaloid, there is a similar dynamic whereby prosumers' multilayer self-identification also plays a significant role in their cultural practices.

The cultural meaning of Vocaloid is complex. On one hand, it is a Japanese technology, and the software was developed and funded mainly by Japanese business interests. On the other hand, the Vocaloid characters are conceived as culturally universal and artistically hybridized. For this reason, Vocaloid has given rise to an international community of people who identify themselves as Vocaloid fans. At the same time, for local users and their audiences, Volcaloid is still viewed as a foreign medium and a cultural product in need of contextualization within local conditions. This complex process confronts Chinese Vocaloid users with a series of paradoxes. Invariably, Chinese users wrestle with these paradoxes by identifying themselves with Vocaloid characters in different ways. Their multilayer identities impact their cultural practices at different stages in the development of Chinese Vocaloid. This research has identified at least four major strands in their multilayer identities: their identities as Chinese music producers, as Vocaloid fans, as members of a subcultural community, and as cultural entrepreneurs.

The first two identities lead directly to a paradoxical subjectivity in their cultural practices. As previously mentioned, the hybridization of Chinese values and mainstream music genres share a similarity with the production of cosmopolitan music, which can be interpreted at least in two ways. First, the hybrid songs can be seen as a result of the contextualized use of an exotic product. By injecting traditional Chinese values and culturally specific content into a song, the producers have clearly reconfigured LUO Tianyi as a Chinese figure. Second, the process also allows local culture to be visible globally by appropriating a foreign cultural form, which is the Japanese ACG subcultural genre in this case. Thus, two directions of subjectivity are visible as users localize the exotic culture and globalize the local culture. Each of these trends related to subjectivity have been confirmed by the producers' testimonies:

> *I would love to see Tianyi singing different genres of songs. I'd also appreciate different figures of her. But what I'd like to express in my song is a modern girl with ethnic features. Yes, be modern and ethnic at the same time.* (Personal Interview, 2016).

> *In my own work, I try to link our national culture to fit with the international track. You know genres like R&B have their own specific rhythmic pattern. What I always try to do is to use this pattern as the basic tempo and then to merge ethnical melody into it. For me, the ideal song is half traditional and half international.* (Personal Interview, 2016)

Clearly, the Chinese virtual idol as they imagined it is already a hybridization of national identity and the market-oriented global identity as is evident in their emphases on "modernity" and "internationality." It is also clear that they envisioned a role for Chinese traditional culture on the global stage. However, it would be trivial to assert that the promotion of LUO Tianyi's image is their end. After all, unlike commercial practices, they compose music primarily for love and for fun and then to brand LUO Tianyi:

> *I won't say that I write Vocaloid music to really show something. Of course, in the end, you have to show something because there is an audience after all, but what I consider first is what kind of music that I myself want to listen to. I satisfy myself at first, then I may think of the audience.* (Personal Interview, 2016)

The producers may not have been particularly concerned with the question of identity in their initial conceptualizations of LUO Tianyi, but as they progressed further in constructing a Chinese-style image of LUO Tianyi, the issue of "Chineseness" began to come to the forefront and change the production process retroactively:

> *I identify LUO Tianyi as a Chinese singer not only because she can sing Chinese. I get this kind of identity not from her own image but from her songs made by other fans. If you are new to the community, what you would listen to are those famous songs like Sun Quan the Emperor. Of course you would recognize her as a Chinese singer other than anything else.* (Personal Interview, 2016)

Compared to LUO Tianyi, Miku's best known songs, including *World is Mine* and *Hello Planet*, are mostly in the pop-music style without many distinctive ethnic features. The titles of these songs highlight their futuristic, fantastic, and international qualities. Among the producers credited with making Chinese Vocaloid music, many had been Miku fans for years before LUO Tianyi was released. They were familiar with Miku's popular songs as well as their subcultural context. When the Chinese vocal library was released, they would naturally try to capitalize on fans' affection for Miku. This explains why the prosumers constructed LUO Tianyi's figure in ways similar to Miku. In other words, the pre-existence of Miku and the Vocaloid family shaped the way in which they envisioned LUO Tianyi, who would be viewed as a junior colleague to earlier members of the family and, more importantly, as distinct from previous characters:

> *In my own opinion, if LUO Tianyi was constructed just as a modern girl who comes from outer-space, she would be too similar to Miku and other Vocaloid characters. I know there were Latina Vocaloid, Spanish Vocaloid in many other linguistic areas, but none of them were really well-known. I think it is because the character design, including the songs they produce for these characters, is too similar to Miku. I think LUO Tianyi is lucky because Chinese producers are trying give her a lot of Chineseness. I don't really think she would be as successful as she is today if she was just "Miku who can sing Chinese."* (Personal Interview, 2016)

As the data suggest, the construction of LUO Tianyi's image has not been conducted in a linear fashion, and it should not be understood simply as prosumers' success in articulating their own cultural identities through a contextualized foreign medium. Rather, it is the result of a long and difficult process of negotiation that has involved personal cultural choices, global forces, and self-discovery. As both fans of Miku and Vocaloid producers in Chinese, the prosumers would not be satisfied by only addressing Chinese culture or by making no mention of it at all.

At the same time, the similarity of the Vocaloid characters with comics and the virtual nature of these characters clearly overlap with Japanese ACG culture. This resemblance between the two is one of the reasons that fans of Vocaloid characters or LUO Tianyi have been consistently labeled as fans of "Nijigen," which refers to the virtual, two-dimensional fantasy world of ACG. When the hosts from Hunan TV introduced LUO Tianyi as "the goddess of Nijigen," they reversed LUO's identity from a "Chinese" singer back to "virtual" singer because the "Nijigen" itself refers to a virtual and comic world. In so doing, prosumers also shifted their identities from presenters of Chinese culture to presenters of the ACG subculture. By identifying themselves as Vocaloid fans or Vocaloid producers, these prosumers speak back to the imagination of subculture in the mainstream world on behalf of their own community. In China, people who have considerable knowledge regarding traditional arts and literature are usually seen as well-educated elites. The ability to

utilize Chinese traditional cultures in public discourse thus becomes a kind of social capital that helps them establish credibility and allows their works to be taken seriously by the broader public outside of the subcultural community.

The fourth level of prosumers' identity is the "enterprising self" as either amateur or professional music producers, which points to the larger negotiation between self-enhancement and capital power. Viewing Vocaloid music production as a starting point for their careers as professionals, they produce music with the hope of being discovered by the mainstream music industry. While accumulating resources and capital to ease their entry into the music industry and constructing LUO Tianyi's brand as a singer, they also fashion themselves as music producers. In the process, they are gradually co-opted by the dominant power and market-oriented value system to produce more "commercial" music (Appendix 1; Andrejevic, 2008; Zhang & Fung, 2013).

Although the commercialization of Vocaloid in China has just started, the impact of this "neoliberal-authoritarian culture" (Zhang & Fung, 2013, p. 49) is already visible in music practices in the country. Deeply immersed in a consumer culture, Chinese prosumers tend to embrace this neoliberal ideology without being keenly aware of the power penetration and cultural hegemony behind it:

> *[The Vocaloid prosumers] cannot survive only by affection. I appreciate the commercialization of Vocaloid production because it is a chance to explore more stages for us and for characters to perform. LUO Tianyi is more like a grassroots figure now. In Japan, there are many professional musicians making songs for Miku. While in China, the community is made by amateurs like me. More commercial events would definitely attract more professional musicians, which is good for the development of* Vocaloid. (Personal Interview, 2016)

Since the development of Vocaloid significantly depends on grassroots production rather than institutionally based marketing, the power of the nation-state may not be obviously as pronounced in the contextualization process. However, the Chinese government is persistently suspicious of foreign cultural products and retains strict control over the entertainment industry (Fung, 2008). The deteriorating relationship between China and Japan has made it even harder for a Japanese product to enter the Chinese market. As LUO Tianyi has entered the public's view, the mainstream media has made sure that her identity as a Chinese virtual singer is reinforced. During her debut on TV, LUO Tianyi appeared at the Minor Chinese New Year Gala to celebrate a Chinese traditional holiday while wearing a red, Chinese-style dress and performing a folk song with a mainland Chinese human singer. Such details in the production design clearly suggest that LUO Tianyi's Chinese image had already been approved by the state. As previous studies have indicated, the cultural industry in China heavily depends on affective labors (Zhang & Fung, 2013). While the speed of commercialization increases, the tension among the different layers of identity and diverse external forces is likely to escalate, and the cultural politics in Vocaloid practices are likely to become even more complex.

Conclusion

The cultural impact of globalization has sparked intense debate among scholars with different perspectives on its implications regarding cultural identity. This article is an attempt to examine how local culture and local identity are configured in the process of contextualizing Vocaloid in China. It is true that the program's open-source and culturally unspecific vocal library offers the

potential to engage grassroots production globally and the digitalized human voice and the "outer space identity" of the virtual singers establish the Vocaloid family's universal identity. Yet a closer examination of how Chinese prosumers have constructed Vocaloid singer LUO Tianyi shows that a strong dose of traditional Chinese culture has been injected into the software's creations produced in China. Instead of constructing LUO Tianyi as a super-modern idol, Chinese users have highlighted her Chineseness. By hybridizing ethnic cultures with mainstream music genres like J-rock, electric, music and R&B, the Vocaloid practice in China could be seen as a successful example of cosmopolitan music production that incorporates local traditions. The focus on the significance of a multilayered identity in this study helps interpret the hybridization embedded in the Vocaloid practice as a cultural choice resulting from complex negotiations between identities rather than as a representation of a bicultural identity. In different cultural and economic settings, Chinese prosumers identify themselves as fans of the Vocaloid family, Vocaloid producers in China, ACG fans, and part-time or full-time music professionals. These identities are part of their expectations for both LUO Tianyi and themselves. In constructing LUO Tianyi as a Chinese figure, the prosumers have identified themselves with a dynamic subjectivity, struggling in paradoxes between the local and the global, affection and capital, subculture and a mainstream value system, self-expression, and dominant power.

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References

Alter, D. A., O'Sullivan, M., Oh, P. I., Redelmeier, D. A., Marzolini, S., Liu, R., & Bartel, L. R. (2015). Synchronized personalized music audio-playlists to improve adherence to physical activity among patients participating in a structured exercise program: a proof-of-principle feasibility study. *Sports Medicine-Open, 1*(1), 23.

Andrejevic, M. (2008). Watching television without pity: The productivity of online fans. *Television & New Media*, *9*, 24–46.

Appadurai, A. (1990). Disjuncture and difference in the global cultural economy. *Theory, Culture and Society*, *7*, 295–310.

Arnett, J. J. (2002). The psychology of globalization. *American Psychologist*, *57*, 774–783.

Beck, U. (2000). *What is globalization*. Cambridge, UK: Polity Press.

Beck, U. (2001). *World risk society*. Liphook, UK: Blackwell Press.

Bell, S. A. (2015). The dB in the .db: Vocaloid software as posthuman instrument. *Popular Music and Society*, *39*, 222–240.

Bennett, W. L. (2003). New media power. In N. Couldry, & J. Curran (Eds.), *Contesting media power: Alternative media in a networked world* (pp. 17-37). Lanham, MD: Rowman & Littlefield.

Born, G., & Hesmondhalgh, D. (2000). *Western music and its others: Difference, representation, and appropriation in music*. Berkeley: University of California Press.

Chua, B. H., & Iwabuchi, K. (2008). *East Asian pop culture: Analyzing the Korean wave*. Hong Kong: Hong Kong University Press.

Condry, I. (2011a, July 11). Miku: Japan's virtual idol and media platform. *MIT Center for Civic Media*. Retrieved from https://civic.mit.edu/blog/condry/miku-japans-virtual-idol-and-media-platform

Condry, I. (2011b). Post-3/11 Japan and the radical recontextualization of value: Music, social media, and end-around strategies for cultural action. *International Journal of Japanese Sociology*, *20*, 4–17.

Fung, A. Y. (2008). Western style, Chinese pop: Jay Chou's rap and hip-hop in China. *Asian Music*, *39*, 69–80.

Giddens, A. (1990). *The consequences of modernity*. Cambridge, UK: Polity Press.
Huang, S. (2011). Nation-branding and transnational consumption: Japan-mania and the Korean wave in Taiwan. *Media, Culture & Society*, *33*, 3–18.
Inglehart, R. (1997). *Modernization and post modernization: Cultural, economic, and political change in 43 societies* (*vol. 19*). Princeton, NJ: Princeton University Press.
Iwabuchi, K. (2002). *Recentering globalization: Popular culture and Japanese transnationalism*. Durham, NC: Duke University Press.
Iwabuchi, K. (2008). When the Korean wave meets resident Koreans in Japan: Intersections of the transnational, the postcolonial and the multicultural. In C. Beng Huat, & K. Iwabuchi (Eds.), *East Asian pop culture: Analyzing the Korean wave* (pp. 243–264). Hong Kong: Hong Kong University Press.
Jenkins, H. (2006). *Convergence culture*. New York, NY: New York University Press.
Jensen, L. A. (2003). Coming of age in a multicultural world: Globalization and adolescent cultural identity formation. *Applied Developmental Science*, *7*, 189–196.
Kim, Y. (2013). *The Korean wave: Korean media go global*. New York, NY: Routledge.
Liebes, T., & Katz, E. (1990). *The export of meaning: Cross-cultural readings of Dallas*. Oxford, UK: Oxford University Press.
Lull, J. (2000). *Media, communication, culture: A global approach*. Cambridge, UK: Polity Press.
Mackay, H. (2000). The globalization of culture. In D. Held (Ed.), *A globalizing world? culture, economics, politics* (pp. 47–84). London, England: Psychology Press.
Mittleman, J. H. (2000). *The globalization syndrome: Transformation and resistance*. Princeton, NJ: Princeton University Press.
Regev, M. (2007). Cultural uniqueness and aesthetic cosmopolitanism. *European Journal of Social Theory*, *10*, 123–138.
Regev, M. (2011). Pop-rock music as expressive isomorphism: Blurring the national, the exotic, and the cosmopolitan in popular music. *American Behavioral Scientist*, *55*, 558–573.
Schiller, H. I. (1975). Communication and cultural domination. *International Journal of Politics*, *5*, 1–127.
Shepard, B., & Hayduk, R. (2002). *From ACT UP to the WTO: Urban protest and community building in the era of globalization*. Brooklyn, NY: Verso Press.
Straubhaar, J. D., & La Pastina, A. (2007). Making sense of world television: Hybridization or multilayered cultural identities. In J. D. Straubhaar (Ed.), *World television: From global to local* (pp. 221–256). London. England: SAGE.
Thompson, J. B. (1995). *The media and modernity: A social theory of the media*. Palo Alto, CA: Stanford University Press.
Tomlinson, J. (2003). Globalization and cultural identity. *The Global Transformations Reader*, *2*, 269–277.
Turino, T. (2008). *Music as social life: The politics of participation*. Chicago, IL: University of Chicago Press.
Utz, C., & Lau, F. (2013). Introduction. In: C. Utz, & F. Lau (Eds.), *Vocal music and contemporary identities: Unlimited voices in East Asia and the west*. New York, NY: Routledge.
Wu, H., & Chan, J. M. (2007). Globalizing Chinese martial arts cinema: The global-local alliance and the production of Crouching Tiger, Hidden Dragon. *Media, Culture & Society*, *29*, 195–217.
Zhang, L., & Fung, A. (2013). The myth of "Shanzhai" culture and the paradox of digital democracy in China. *Inter-Asia Cultural Studies*, *14*, 401–416.

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Appendix 1. Audio recordings of prosumers.

	ID	Birth	Sex	Interview date	Duration	Method
01	ilem	1990s	M	20/03/2016	0:30'00"	Audio recording
02	Wu Gui	1990s	M	20/03/2016	0:32'00"	Audio recording
03	COP	1990s	F	03/04/2016	1:40'00"	Instant messenger
04	Da Mao	Late 1980s	M	03/04/2016	0:42'00"	Audio recording
05	Zhou Cun	1990s	F	03/04/2016	1:30'00"	Instant messenger
06	Hui	Late 1980s	F	08/04/2016	0:25'00"	Audio recording
07	Mao Xie	1990s	F	22/07/2016	1:30'00"	Instant messenger
08	Kitty	1990s	M	22/07/2016	0:30'00"	Audio recording
09	Ian	Late 1980s	M	23/07/2016	1:30'00"	Instant messenger
10	Folk	1990s	F	23/07/2016	1:00'00"	Instant messenger
11	William	Late 1980s	M	25/07/2016	1:15'00"	Instant messenger