AVATARS IN LANGUAGE LEARNING

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Abstract

This paper presents the concept of the avatar and some of its uses in education, especially in the teaching of additional languages. A case study shows that a group of students using avatars to make personal presentations replicated many of their personal features and demonstrated a preference for synthesized voice. As to general personal introductions, the most recurrent features were: openings with a greeting followed by their names, course identification and semester or year. At the end of the text, I present further suggestions for the use of avatars in the teaching of additional languages.

Avatars

The word *avatar*, according to the Oxford Dictionary of English Etymology (Onions, 1966), originates from Sanskrit and means the descent of an entity and its incarnation in human form. In the virtual context, Peterson (2005) suggests the following definition: "Avatars are online manifestations of self in a virtual world (Kim, 2000) and are designed to enhance interaction in virtual space" (p. 30).

With the advent of digital technology, computer users began to become "incarnate" in virtual characters, first in games and afterward in social networks such as *Second Life* – http://secondlife.com/ –a third dimension virtual environment that simulates real life. The members of the different social networks and games environments project identities idealized in graphic representations to perform the actions expected or permitted in these virtual communities.

Similar to Gods manipulating humans, the avatar owners can execute certain actions through their graphic representations that they would probably not be able to carry out in real life. An example in the fictional world that illustrates these remote-controlled actions well is the film *Avatar* (Cameron,2009). In the film, Jake Sully, an American ex-marine, who becomes paralyzed, controls his avatar through neural connections and acts as a mercenary fighter at the service of explorers of the planet Pandora.

In the educational area, avatars can be used as a mask to protect identities and function as an alternative to reduce stress in the performance of certain learning tasks.

Zargaryan (2012), inspired by the work of Antonacci, DiBartolo, Edwards, Fritch, McMullen, and Murch-Shafer (2008), concluded that:

> Avatars allow learners to carry out tasks that would be difficult in real life contexts due to a number of environmental constraints such as location, scheduling, etc.

> Avatars provide an environment of social interactions, which can serve as a basis for collaborative knowledge development. (p. 24)

It is possible to create avatars for your Facebook page, Twitter, Skype and Whatsapp accounts using the Androidify, FaceQ, Avatar Maker, Smartphone Avatar and Bitmoji applications, but they only generate images. There are other applications that allow you to insert voice, such as PeoplePutty for example, but you need to download the software to your computer or buy a CD. One application for generating avatars with image and voice that has been widely used in language teaching is Voki, described below.

Voki and Its Use in the Teaching of Languages

Voki (http://voki.com/) is a partially free application for creating animated avatars, with the option of using a real or synthesized voice. It is not necessary to download any program to create a Voki avatar. The user can choose the style of the character, but the choice is limited in the free version. Faces in 3D and of well-known politicians are only available in the paid version. The same limitation applies to the background and customizations, including changes of appearance, clothes and accessories. The voice is activated via telephone, microphone or text, and recording time is restricted to a maximum of one minute in the free version. If the user chooses to use text, the voice is generated by voice technology, and there is a choice of language and voice type.

Voice options include several languages. If the choice is English, users may choose an English, American, Scottish or Australian accent. For Portuguese, there is a choice between European and Brazilian variants. French has only one option while in addition to the Spanish from Spain, there are another two variants: Mexican and Latin American.

As Antunes (2012) points out, "students can hear, stop, backtrack or even self-correct their own recordings" (p.15) during voice insertion. The synthesized voice can be heard before the recording of the actual voice, as a means of helping students to learn pronunciation in the chosen selection (when this option exists). It may also be chosen by shy students who do not want to use their own voices or by those who do not have recording tools.

After the avatar is created, a link is generated and the avatar can be included in a webpage, such as Facebook, Twitter, blog or even sent by e-mail.

In the paid versions, the teacher can create a Voki Classroom and monitor students within this environment. There is also the option made for presentations – *Voki Presenter* – which creates presentations through an avatar with unlimited audio time. The recording is hosted in a cloud and can be shared with other people.

Hébert, Corcoran, Coté, Ene, Leighton, Holmes, and Padula (2014) comment :

> When students create their avatar, they also give it personal features such as eye color, hair color, and facial expressions. In many instances, avatars are a direct representation of the student, but for others, the avatar represents the student's ideal self. (p. 97)

Boss (2009, para.18) believes:

> Designing personalized three-dimensional avatars gives the kids a risk-free chance to explore their identity. Avatars don't look quite as real as photographs, but they aren't totally abstract, either. They're just different enough from real life to make them an ideal device for toying with appearances.

In our case, we worked with undergraduate students, but we agree that the comments of these two authors also apply to our context.

There are several uses of an avatar provided by the Voki tool. According to Cicconi (2014) it can be used in order for "that character to share thoughts and ideas through typed text, computer microphone, sound file upload, or phone" (p.62).

Bolduc-Simpson and Simpson (2014) suggest that "[T]eachers can use this free animated speaking avatar to present short one-minute concepts, make announcements, summarize homework assignments, record messages, or give instructions for doing a task" (p. 244). For students, they suggest that Voki can be used:

> to create their own talking characters. Characters can be animals, historical figures, cartoon characters, VIPs, anime characters. Using Voki, students can enhance their language skills, do book reports, advertise a product, reflect on their learning, announce school events, send holiday messages home to their parents, introduce themselves, explain concepts, or give instructions. (p.244)

In her work with pre-school children, Cicconi (2014) used avatars created with the Voki tool so that students could describe scientific experiments to their parents. As the avatars are on the Web, it is possible to widen the audience for them. Besides this, as Cicconi points out (2014, p. 62), "Evaluating with Voki empowers student audiences to watch one another's Voki projects and invent a responder Voki for feedback that furthers collaboration."

Antunes (2012) claims:

> The production of the Vokis could enable students to not only practice speech, but would also allow them to hear and self-correct their pronunciation. We may also say that this tool could encourage and stimulate more timid students to participate, since they can talk individually to a microphone, instead of facing a whole class, where they might be subject to laughter or teasing. (p. 29)

Antunes (2012) adds:

> The choice of audio format can have two purposes:
>
> 1. Make the student more critically aware, since on hearing his/her recording, and those of colleagues, he/she will be more error conscious.
> 2. Enable the teacher to be more precise in evaluations, in so far as it will be possible to observe the speech evolution of each student through their avatars.
>
> In truth, avatars could represent a new form of registering and evaluating data on each student's evolution with regard to oral development. The teacher could create a "Digital Vokifolio", in which a chronological registry would be made, enabling a more in-depth and individualized reflection on the evolution of oral production and comprehension. (pp. 29-30)

One of the activities developed by Antunes (2012) with the Voki tool was a game, which she described as follows: "This game consists in the use of the avatars previously

created by students, whereby through the avatar, they need to discover both the famous character and the person who created it" (p. 52).

Zargaryan (2012) describes a quasi-experimental study carried out with communication students from the American University of Armenia. The researcher investigated the use of the Voki application in the development of oral proficiency in English as a foreign language. Survey questions were:

1. Does Voki have an effect on the development of EFL learners' oral proficiency?
2. What is the learners' attitude towards Voki?
3. What are the learners' learning behaviors and strategies when creating Voki? (p. 30)

Apart from the pre-test and post-test, the researcher used questionnaires and interviews. Data proved that the experimental group that used the Voki application showed superior oral performance in post-tests. With regard to the attitude to the application, participants liked working with the tool:

> Voki can help them improve their English in terms of vocabulary, pronunciation, fluency and grammar. Participants stated that Voki helps them to use the target language outside class and to practice their speech in their own space and time. Results of the participants' responses show that learners think that even preparing scripts and creating their Voki by reading from those scripts helped them develop their oral proficiency and contributed to more fluent speech, free of grammar and word choice mistakes. (p.50)

As drawbacks, they pointed to the absence of interaction and the recording time limitation in Voki, which is 60 seconds, in the free version.

Regarding learning strategies and behaviors, results from the questionnaire and the interview show that the average time spent by participants in producing the Vokis was 34 minutes. Most students recorded from a script and, on average, repeated recordings four times before publishing them.

I have been using the Voki tool in classes about digital tools for a good while, both in undergraduate and graduate courses. In the following section, I describe research on the use of Voki with Brazilian students.

Research Goals and Methodology

In this research, I used a set of avatars generated by students of Portuguese and additional languages from an online course on digital tools, taught in the first semester of 2015.

The goals of the study were to:

1. Verify if the students reproduced their physical features when creating their avatars, as Hérbert et al. (2014) suppose or if they played with their appearance as Boss (2009) predicts.
2. Confirm if they chose to record their own voice or if they used a synthesized one.
3. Look at presentation content.

The course subject was offered to 150 students on the Moodle platform and the first task consisted in making a personal introduction through a Voki avatar. In the Moodle Platform, students found the following guideline:

> This week (from March 02 to 06), we will introduce ourselves through avatars.
>
> What is an avatar? In the virtual world, an avatar is a digital persona that you create and customize. It is you in another dimension.
>
> This is my avatar:
> http://www.voki.com/pickup.php?scid=11050927&height=267&width=200
>
> Create your avatar and introduce yourself to our learning community. Choose a free model. The paid models have a mortarboard (the one used in graduation ceremonies)
>
> Use http://www.voki.com/ Read the guidelines on how to create and publish a Voki avatar:
>
>> In text:
>> http://www.gestaoescolar.diaadia.pr.gov.br/arquivos/File/pdf/voki_tutorial.pdf
>> http://ferramentaseducativas.com/index.php/multimedia/video/72-voki-o-avatar-que-fala
>> On video:
>> https://youtu.be/4qNIdZ9Oza8
>> https://youtu.be/Z1Itetccke4

The task was completed by 120 students who posted the links to the avatars in a forum called "Avatar," where they also received feedback from the two monitors who helped me manage the course. I selected 18 avatars for analysis, using the following criterion: the same number of students with pictures on their Moodle profile. Only nine male students and 47 female students fulfilled this condition. I then chose all nine of the male avatars and, from the 47 female avatars, I picked the first ones from the first and last of the six pages in the forum until I had another nine avatars.

Data Analysis

In Figure 1, you can see the avatars of 18 students.

Figure 1. Collection of avatars produced by 18 students.

Personal Features and Features of the Avatars
With the exception of one student who chose the image of a clown, the other 17 chose avatars that reproduced features of their profile photos on Moodle, such as skin color, use of glasses, hair length and color. The wearing of glasses was greater in the avatars. All four students who wore glasses in their photos also appeared wearing glasses in the avatars, and another four avatars also had glasses. Even not knowing if they wear

glasses in real life, we know that people generally take off their glasses when they take photographs, and this reinforces the hypothesis that the avatars resemble their creators.

It is also worth noting that one of the students of French and Portuguese marked his identity as a French learner with an image of the Eiffel tower in the background. These data support the hypothesis of Hérbert et al. (2014) that students create their avatars with features that are similar to their personal ones.

Voice Recording Versus Synthesized Voice
Since the goal of the course subject was the use of tools and not the teaching of a particular language, the task was in Portuguese and students could use their voices or type in text to be read by a synthesized voice. All of the male students chose not to record their voices. One of them justified his choice of type because he did not have a microphone. One participant chose European Portuguese.

Among the female students, 4 of them recorded their own voices and 5 used a voice synthesizer. Two students chose languages they were studying: Spanish and English. This was also a form of highlighting their Spanish and English learner identities. Their introductions were very brief: one recorded herself saying *"Hey, What's up?"* and the other used the voice synthesizer to simply say *"Hola que tal?"*

The Personal Presentation Genre
Table 1 provides an overall view of the most recurrent elements of introductions made in Portuguese. Numbers 1 to 7 denote female students; 8 to 16 male students. Avatars limiting themselves to greetings in English and Spanish were not included in the table.

Table 1

Recurrent Elements in Introductions/Presentations Through Avatars

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Greeting	x	x			x	x		x	x			x	x	x	x		10
Name	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	16
Civil status			x														1
Age	x			x			x						x				4
Profession			x	x											x		3
Researcher								x									1
Justification for choosing the Language and Literature Arts course			x														1
Justification for choosing course subjects											x			x			2
Course/ Period/year	x	x		x	x	x	x	x		x	x	x	x	x	x	x	14
Experience with technology							x										1
Sentiment in relation to the subject												x					1
Expectation of the subject				x		x	x		x				x				5
Likes							x										1
Wishing everyone a good semester					x		x					x	x			x	5

Most greetings began with "olá" (hello), and just one student used "Oi, tudo bem? (Hi, is everything ok?). Another one used "Olá, prazer conhecê-los" (Hello, pleased to meet you) and at the end repeated that it was a pleasure to be in the group.

Another interesting activity is suggested by Zargaryan (2012): "Students can create an avatar similar to a character from a story, add a scene and give it a voice."

Conclusion

The task with avatars in the course on the use of digital tools fully achieved its goal, as students learned to use the tool. Nevertheless, for the teaching of languages, the task needs to present more instructions. I suggest the following format.

> Your task is to make two personal presentations, using Voki. The first should be informal and aimed at students such as you. The second is more formal and should be addressed to the person in charge of the student exchange program in a foreign university.

Follow the steps below:

Informal Presentation	Formal Presentation
Greeting: Options: Hey, hi, hello	**Greeting**: Options: Good morning, good afternoon, good evening
Tell us your name or nickname: I am…………./ They call me (nickname)	**Tell us your full name**: My name is……
Tell us your age: example: I am nineteen	**Tell us your age**: example: I am nineteen years old.
Say where you come from: I am from Brazil/ I live in (city) in Brazil	**Say where you come from**: I am from Brazil/ I live in (city) in Brazil
Talk about your study or work I study … I am a shop assistant/ I work as a waiter/ I work in a restaurant	**Talk about your study or work** I study … I am a shop assistant/ I work as a waiter/ I work in a restaurant
Talk about your hobbies I like playing basketball I like reading books I like going to the movies	**Talk about your hobbies** I like playing basketball I like reading books I like going to the movies
Talk about your plans for this semester/year I'm gonna … I intend to …	**Talk about your plans for this semester/year** I am going to … I intend to …

Based on Boss (2009), as an activity, I would suggest asking the students to compare their physical features with those they attributed to their avatars.

Boss (2009) noted that her students discussed the appearance of their avatars and gave the following examples:

Girl 1: I made myself taller and thinner.
Girl 2: Me too.
Boy 1: I made myself taller and muscular.
Boy 2: I didn't keep my regular appearance because by media definition, I'm pretty gross looking.
Boy 3: Me too.

To complete this task orally, students can use the Vocaroo tool (vocaroo.com), a free on-line voice recorder that enables recording in clouds, without the need to install any application. Recordings may be sent as voice messages and incorporated into blogs or wikis.

Other activities with Voki may involve the creation of characters based on literary texts and reproductions of their scripts.

In addition, the students themselves may make suggestions for new uses.

References

Annetta, L., Klesath, M., & Holmes, S. (2008). V-Learning: How gaming and avatars are engaging online students. *Innovate: Journal of Online Education, 4*(3), 1-5. Retrieved from https://www.researchgate.net/publication/242719460_V-Learning_How_Gaming_and_Avatars_are_Engaging_Online_Students

Antonacci, D., DiBartolo S., Edwards N., Fritch K., McMullen B., & Murch-Shafer, R. (2008). *The power of virtual worlds in education: A second life primer and resource for exploring the potential of virtual worlds to impact teaching and learning* (White paper). Retrieved from http://www.angellearning.com/products/secondlife/downloads/The%20Power%20of%20Virtual%20Worlds%20in%20Education_0708.pdf

Antunes, C. R. N. de A. (2012). *Mudam-se os tempos, mudam-se os gadgets. Voki: Uma proposta de trabalho da Expressão Oral no Ensino das Línguas* (Unpublished master's degree dissertation). Universidade do Minho, Brago, Portugal.

Bolduc-Simpson, S., & Simpson, M. W. (2014). Engaging our 21st century learners: Teaching tips for five free-n-easy web 2.0 apps. *Childhood Education*, *90*(3), 241-245.

Boss, S. (2009). Avatars teach teens about self-image. Retrieved from http://www.edutopia.org/avatars

Cameron, J., Landau, J. (Producers) & Cameron, J. (Director). (2009). *Avatar* [Motion picture]. United States: Lightstorm Entertainment.

Cicconi, M. (2014). Vygotsky meets technology: A reinvention of collaboration in the early childhood mathematics classroom. *Early Childhood Educational Journal*, *42*, 57-65.

Hébert, T. P, Corcoran, J. A., Coté, J. M., Ene, M. C., Leighton, E. A., Holmes, A. M., & Padula, D. (2014). It's safe to be smart: Strategies for creating a supportive classroom environment. *Gifted Child Today*, *37*(2), 95-101.

Kim, A. J. (2000). *Community building on the Web*. Berkeley, CA: Peachpit Press.

Onions, C. T. (Ed.). (1966). *The Oxford dictionary of English Etymology*. Oxford, UK: Oxford University Press.

Peterson, M. (2005). Learning interaction in an avatar-based virtual environment: A preliminary study. *PacCALL Journal*, *1*(1), 29-40. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download? doi=10.1.1.104.5544&rep=rep1&type=pdf

Zargaryan, T. (2012). *The impact of Voki on EFL learners' speaking performance: the influence of an e-learning tool on EFL learners' speaking performance*. Saarbrucken, Germany: Lambert Academic Publishing.

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