Technology and Literacy Plan

The Students

Entire Class

The class I have chosen to focus on is World Regional Geography. It is made up of twenty-seven freshmen. They range in age from fourteen to sixteen, but they are all first time freshmen. This class has been identified by the school as an inclusion class; therefore in addition to myself as the general educator in the classroom, there is also another teacher that is highly qualified in special education (but not the content). Of the twenty-seven students in the class, eleven have been identified as having a disability. Of the eleven students with disabilities, six have a mild learning disability, two have a hearing impairment, two have Asperger's Autism, and one has a visual impairment. All of the students range from the lower-middle class to the upper-middle class and seven receive free or reduced breakfast and lunch. Sixteen of the students are female. Of the twenty-seven students, twenty are Hispanic, three are white non-Hispanic, and four are African American. Within the sub-group of twenty Hispanic students, seven are classified as English Language Learners (ELLs) by the school district. This means that they were assigned a roster teacher that is highly qualified in English as a Second or Other Language (ESOL) and they also have one block per day dedicated as a resource class with that roster teacher.

The high school is located in Manassas, Virginia, which is approximately thirty five miles southwest of Washington, D.C. The region has a growing Hispanic population, but the county has recently adopted legislation to identify and deport illegal immigrants. The school has

nearly 2,000 students made up of approximately fifty percent white non-Hispanic, forty percent Hispanic, five percent African American, and five percent Asian.

Student Subgroup

For this plan, I have chosen to focus on five students. A detailed description of each student is provided below. For confidentiality, all of their names have been changed.

Sally

Strengths – Sally is detail-oriented and very organized. According to her roster teacher, she has a moderately high IQ right around 100. She is driven and motivated to overcome her disability. She is in the upper-middle class, so she has opportunities that a lot of other students in the class do not have. Sally's parents have a tutor come to their house twice a week to assist with her classwork. The tutor also comes to the house the night before tests and every day during midterm and finals week. Sally's parents also have a computer at home with numerous open source text-to-speech software applications downloaded. At home, Sally uses FoxVox and Text to Voice. She has a support system at home that helps her on a regular basis. They are involved in her education.

Challenges – Sally has a visual impairment. She has no vision in her left eye and only eighty percent vision in her right eye. As a result, she has a very difficult time with depth perception. This causes problems for writing because she cannot always judge the distance from her hand to the paper. She gets frustrated with her disability, but is motivated not to let it define her.

Accommodations – Sally has an IEP. This document states that she is to receive extra time for writing and reading assignments. I provide her with a teacher copy of the notes and provide her

with additional clarification for written directions.

Literacy Challenges – Sally faces two challenges regarding literacy. She has a difficult time reading written text and she also has a difficult time writing text (but not typing).

Mark

Strengths – Mark enjoys the content of the class. He is very interested in learning about the world. He also has a lot to offer because he has travelled a vast amount. Mark is one of my Hispanic students and has only been in the USA for two years. He was born in El Salvador and resided there until his move to the USA. Mark does not have problems speaking or writing in his native language, Spanish. Mark is an English Language Learner (ELL). His speaking and listening skills of the English language are well developed. Mark has Basic Interpersonal Communication Skills (BICS) and he does have a firm grasp on his academic language.

Challenges – Because Mark is an ELL, he faces challenges on a daily basis with written text. While his speaking and listening is ahead of his peers in similar situations (only having been in the country for approximately two years), he is behind his peers in writing and reading. Mark is not motivated to improve his reading and writing. He is motivated to prove how well he can speak English. Mark does not see the value in learning to read or write English. He only wants to learn how to speak and listen to English to be able to find a job. He enjoys working on cars and wants to be a mechanic. He does not think that reading and writing are essential for this type of profession. This type of academic language is a challenge for Mark because he does not value it.

Accommodations – Mark is considered a Level 3 ESOL Student according to our school. This means that he does not have a resource class, but he does have a case-load manager that is supposed to meet with him on a weekly basis to ensure that he is successful.

Literacy Challenges – Mark faces obstacles in reading and writing. I provide him with extra time and oral clarification, but I also want to challenge him to continue reading and writing. While Mark understands the English oral language fairly well, he does not understand the rules of the written English. This presents challenges for writing. In regards to reading English, Mark's academic vocabulary in English is weak. He has developed a decent vocabulary for speaking slang, but he struggles in academic writing.

Michael

Strengths – Michael is a stellar athlete. His drive and determination continue in to the classroom. He is motivated to overcome his disability. Michael enjoys doing some homework because he likes the feeling of accomplishment when he finishes and turns in a homework assignment. The assignments that Michael typically turn in all pertain to map work or writing assignments that do not require writing in sentences.

Challenges – Michael has a learning disability in reading, specifically dyslexia. As a result, he faces obstacles reading decoding. This challenge carries over to his writing. He often confuses sentence structure when trying to complete writing assignments. He gets especially frustrated when the computer places the red lines under his written work. Michael's motivation ends at doing non-writing homework. He rarely completes homework assignments that require even the

slightest bit of reading. I have also noticed that he does not read directions to assignments. He also rarely studies for test/quizzes. He is not confident in his abilities, so he does not try.

Accommodations – Michael's IEP states that he is to receive extra time for reading and writing assignments, but nothing else. Because of his disability, Michael often confuses directions and as a result completes assignment incorrectly. His IEP says nothing about clarification of written directions, but it is necessary.

Literacy Challenges – Michaels faces obstacles regarding reading and writing. His oral comprehension of English is sufficient and he has a firm grasp on the academic language. Michael's struggles with decoding written text frustrate him and he gives up after several attempts of what he perceives as failures.

Amanda

Strengths – Amanda works well in groups. She likes taking the lead in group assignments. She takes oral instructions very well. Amanda has good verbal communication and she has high oral comprehension.

Challenges – Amanda has a visual impairment that limits her vision in her left eye. She struggles with depth perception. Amanda is easily frustrated and distracted when trying to read text.

Amanda is not motivated to complete assignments that require any amount of reading. She needs to have all directions verbally communicated to her.

Accommodations – Amanda has an IEP. She is granted extra time for reading and writing assignments. All directions, tests, and quizzes need to be read to her and a teacher must write answers as Amanda dictates them. Any written assignments, maps, or handouts that are given to Amanda must be printed in a font larger than twenty and all images need to be enhanced by at least 130 percent.

Literacy Challenges – Amanda's biggest literacy challenge is reading. Due to her disability, she also struggles writing because cannot see the shapes that she is writing. Her text is usually illegible. Amanda's vocabulary is at grade-level and she appears to understand the concepts that are taught to her orally. The ideas she shares in class demonstrate her understanding of the material that is orally taught to her. Since this is a geography class, maps are used often.

Amanda's visual impairment limits her ability to read a map. Thematic maps that require students to read the key create obstacles and typical text-to-speech readers struggle to adapt to reading maps for her.

Curtis

Strengths – Curtis is a leader in the class. He is well-liked in the class because he is humorous. Curtis also excels in hands-on activities.

Challenges – Curtis has been diagnosed with ADHD. He is sometimes overly active in class and has trouble taking verbal commands. I have noticed that when I do give him verbal commands, they must be short and to the point. If I try to elaborate on why I want him to do something, he focuses his attention elsewhere. He also has difficulty completing assignments in their entirety. He will often start assignments, but not finish them. He is disruptive in the classroom and cannot

control some of his bodily movements. He often pokes at students or stares at them. He also has a tendency to throw things, like paper, pencils, wrappers, food. While this is not an everyday occurrence, it happens at least every other day.

Accommodations – Curtis does not have an IEP or 504 Plan, therefore he does not officially have any accommodations. He was last tested for specialized services when he was in fifth grade and it was determined at that point that he did not qualify. He needs to be retested to see if he qualifies now. In the classroom, however, I allow Curtis to "visit the bathroom" as much as he wants. By this, I mean that he can walk from one end of the hallway to the other to help manage some of his hyperactivity and need for movement. So far, he has not abused this privilege.

Literacy Challenges – Curtis does not self-advocate for himself, so he does not always receive all of the help that he needs. Curtis has problems maintaining focus when trying to read or write anything. If directions are more than a paragraph, he rarely reads all of the directions. According to his English teacher, Curtis reads at grade level. It appears as though he avoids reading not because he struggles with decoding, but perhaps he has problems with comprehension. He can read the words, he just does not always understand the bigger picture.

The Curriculum

General Expectations

In World Regional Geography students are expected to gain an understanding of the physical and cultural world. They are expected to be able to comprehend the relationships between people and between people and the physical landscape (i.e. What impact does access to

water have? What are the advantages of being in OPEC?). At the conclusion of the school year, students are required by the state to take a Standards of Learning assessment (commonly called an SOL). This assessment is created based upon standards that have been developed by the state. The students are expected to understand and comprehend the standards in preparation for the assessment. In order to earn a verified credit, students must pass the class and pass the SOL. Students need to earn twenty verified credits in order to earn a standard diploma and twenty four credits to earn an advanced diploma. In my classroom, I go beyond the state standards and expect the students to have a deeper understanding that required by the state.

On a daily basis in my classroom, students are expected to arrive prepared for class (writing utensil, assignments) and participate in all activities. Activities vary from lecture to map reading and decoding assignments to reading assignments to writing assignments. There are occasional hypermedia projects, quizzes, tests, and oral presentations.

Literacy Expectations

I expect that students will be able to read and comprehend texts for this course. The texts that are used in this course are a textbook, articles, maps, and graphs. Students that face challenges comprehending the various texts often struggle to earn full credit on assignments and also do not perform as well on the SOL. Every subject has a different language and vocabulary that is used. Students must learn this language to speak intelligently about the subject area. I expect that all students' literacy will be informed by their culture. My expectation is that all of my students, from all their different cultural backgrounds, will bring different skills and knowledge. I want to provide my students with a literacy foundation that is consistent and uniform. I expect that by the end of this project, my students will all have similar literacy skills and foundation to improve their reading and writing.

Skills to Master

One of the biggest challenges all of my students face is the vocabulary. While most students think they will be focusing on maps in geography, they are unprepared and disinterested in learning the vocabulary for the course. The vocabulary that students need to master involves physical features, names of nations, names of peoples, and terms that describe cultural characteristics (like Pagoda, Wat, or Chalet). My expectation for the class, and the subgroup of students, is that they master the vocabulary. An understanding of the course vocabulary allows the students to read geographic materials and write essays as though they are a geographer. Geographers answer to questions, where is it and why is it there? In order to write like a geographer, students need to be able to answer these two questions for everything. Student success drastically increases on state standardized tests by mastering the vocabulary. The biggest and my first priority for this plan is vocabulary development. Another expectation I have for my students is reading comprehension. With an increased vocabulary, student comprehension of reading material should increase, but not necessarily. Some students know the meaning of all of the words, but face challenges comprehending the bigger picture of the text. Through the use of assistive technology, I expect that students will improve in this area as well.

Technology

Philosophy of Technology

Technology is my partner in the classroom. I use any piece of technology that will make my job easier and will help improve student achievement. Technology in my classroom is used for a wide variety of purposes. I use the different technologies in order to assist my students and to create a fair academic learning community. Different students use different types of

technology to meet their specific academic and literacy needs. I offer several different types of technology and encourage students to explore which technology best meets their needs and emphasizes their strengths and diminishes their weaknesses.

By allowing students to utilize technology, it encourages them to explore where their weaknesses lie and allows them to concentrate on improving those weaknesses. Through the use of technology, students become progressively successful, which in turns promotes academic and social self-confidence. For example, the use of word recognizer software allows students to focus less on spelling and grammar and more on the content of what they are writing. This allows students to effectively demonstrate their understanding without the struggles of writing.

I also encourage students to ask questions via email or other messaging services. This reduces students' fear of speaking in front of their peers and allows them to gain the clarification that they need. It also helps as an informal assessment regarding student achievement and performance. A virtual message from the students also informs and directs my teaching.

While technology is often seen as a savior, there are obstacles to navigate when implementing assistive technology in the classroom. One of the main obstacles is sufficient resources to acquire the technology. All technology requires equipment. All equipment cost money and all funds must be justified. Since assistive technology is a relatively new idea, not all schools are willing to spend funds to support the purchasing of this technology. Furthermore, once schools have the right equipment, the software is another expense. Not all of the necessary technology is Open Source.

While technology can improve achievement, it does not occur automatically. The use of assistive technology requires the knowledge to know who, when, and how to implement the technology. I think that assistive technology only enhances achievement when a teacher is well-

versed in their technology and their students. Teachers need to know their students' strengths and weaknesses to pair them with the right technology.

In my classroom right now, the use of SMART Boards, text-to-speech technology, and language translators have all already improved my teaching. Many school districts, including the one I teach in, limit the use of certain technologies in the classroom, like cell phones, iPad, iPhone, or even laptops. While I understand the school's reasoning for banning these instruments, they can also be used to improve literacy. Any of these pieces of technology can provide a student with a text-to-speech reader or dictionary for easily defining vocabulary. Why limit a students' potential because we are afraid of students getting on Facebook? A big push in the era of No Child Left Behind (NCLB) is to put every student in their own least restrictive environment. A least restrictive environment should also include the use and implementation of technology.

Technology Already in Use

In my classroom there is already a great deal of technology being used. I use a SMART Board everyday as well as my computer. Using these two systems, I regularly use YouTube, TeacherTube, iTunes, and captioning to help my students. On a daily basis I display PowerPoint presentations, maps, and graphs on the SMART Board. The computer and SMART Board are located in my room. Students also have access to a student computer in my classroom.

Additionally, I have access to a library and computer lab that has enough computers for all of my students to use at once. I visit the computer lab approximately once every two weeks for students to learn physical features and nations of the world. Students that have specific accommodations to type written assignments visit the computer lab more often to complete assignments. There is one classroom in the school that has been set up for Read 180. I have never used this system, but

I have access to the technology in the room. All of the computers have access to add-ons, but I have never taught my students how to take advantage of them.

Technology Skills of Students

Students in this class are well-versed in social technology. They are fluent in Facebook, searching in Wikipedia, and Tweeting, but they are not fluent in using a computer for academic applications. Students rarely know how to determine if a website is credible or find an academic article to read. The students in this plan primarily use technology for personal use. They listen to music and play games on their cell phones and iPhones, but do not use them for audiobooks or listening to lectures that are downloadable from class websites. This is probably because they do not know that this is possible. Outside of the classroom, most of these students have access to cell phones, but not necessarily a computer with internet access at home. Of the five students in this technology plan, all but Mark have access to a computer at home with internet access. All of these students have access to a public library, but most have never been to it, nor know where it is or how to get there.

Literacy Toolbox

Literacy Toolbox		
Student Name	Technology-based Application	
Sally	1.	Readability
	2.	<u>WriteOnline</u>
	3.	<u>Dragon Dictator</u>
	4.	Windows Magnifier
	5.	<u>Audiobooks – Audible.com</u>
	6.	<u>Text-to-speech – Yakitome.com</u>
Mark	1.	Windows Movie Maker
	2.	<u>WriteOnline</u>
	3.	Comic Life
	4.	Voice Thread
	5.	<u>Quizlet</u>
Michael	1.	<u>Livebinders.com</u>
	2.	<u>eType.com</u>
	3.	FoxLingo – Dictionary, Grammar
		Checker
	4.	Free Mind
	5.	Online blogging – twitter.com
Amanda	1.	Readability
	2.	WriteOnline
	3.	<u>Dragon Dictator</u>
	4.	Windows Magnifier
	5.	<u>Audiobooks – Audible.com</u>
	6.	<u>Text-to-speech – Yakitome.com</u>
Curtis	1.	Readability
	2.	eType – word predictor
	3.	Dipity
	4.	Free Mind
	5.	Comic Life
	6.	Online blogging – twitter.com

Sally

Sally will use the above mentioned technology-based applications to improve her literacy and overall academic performance. Because Sally already has problems with her vision, readability will eliminate unnecessary information and images from webpages or articles online. This will remove distractions from the screen so that Sally can focus on the content. Readability is a free downloadable add-on in Firefox and is easy to use.

In order to assist Sally with her writing, she will use the software program WriteOnline. This program offers a variety of applications, including text-to-speech and word predictor. The speech feature can be formatted to speak as Sally types so that she can ensure the words that she wants to write are being typed. Dragon Dictator is a speech-to-text application that will allow Sally to speak instead of type. Both of these programs will demonstrate what Sally understands rather than how her visual disability affects her writing.

Sally will also use the Windows magnifier (or a similar magnifier) that is built in to the operating system of the computer she is using. This will enable her to magnify webpages, images, PowerPoint presentation, anything she needs to. This will be especially helpful when reading assignment for the class. It will also benefit her when trying to read the key to a map and locate symbols on a map.

Audible.com will allow Sally to download books. These books can then be read to her on the computer, CD, or a portable music player. Yakitome.com will allow Sally to upload files that can then be read to her. While WriteOnline has a similar text-to-speech feature, it can only read what she is writing. Yakitome.com can read any assignment for Sally. This will be beneficial for the reading assignments.

Mark

As an ELL, Mark may understand and comprehend the material, but he has difficulty demonstrating it orally and in written format. Mark's BICS is a strength, but his academic language skills are creating challenges. Technology that will assist Mark will provide him with alternative forms of demonstrating his knowledge. Comic Life, Windows Movie Maker, and Voice Thread all provide Mark with alternate forms to demonstrate his knowledge. He can

produce a comic strip using Comic Life, a movie in movie maker, and he can create an audio file with images using Voice Thread.

WriteOnline will be one of the biggest forms of assistance for Mark. This program will provide him with a thesaurus, dictionary, and speech applications to ensure that he is using the words that he wants and that they are spelled correctly. This program also offers Mark a graphic organizer to organize his thoughts before he puts them in to formal academic writing. This will act as a sort of rough draft that can build his confidence for writing academically.

Quizlet will provide Mark with an opportunity to learn vocabulary. He can create his own flashcards or download previously made cards. I can also create the cards for Mark at first and then he can use the program to quiz himself. This will help build his academic vocabulary.

Michael

One of Michael's challenges is organizing information. In order to remedy this problem, Michael will use livebinders.com. This is an online binder so he does not need to worry about saving papers. He will also use Free Mind, a graphic organizer to help organize his thoughts before writing them. This will help build confidence that he comprehends the content. In order to help Michael ensure that he is typing the words he actually wants to use, he will use eType. eType is a word predictor program that can be downloaded. Michael's challenges with sentence structure can be assisted with FoxLingo with offers a grammar checker. Michael can type text in to the program to check that the grammar is correct. Lastly, to build Michael's confidence in his writing ability, he will begin by blogging in Twitter. The benefit of this is that he will be limited in the length of his writing. As he builds his confidence and writing skills, his writings can get longer.

Amanda

Amanda's visual impairment limits her ability to see what she is writing or reading. As a result, she will be using Readability to help remove the unnecessary advertisements and images from texts. This will help her focus on the content. She will also be using WriteOnline. This program will read text to her as she types it to ensure what she typed is what she wanted. She will also use Dragon Dictator, a speech-to-text, so that she can speak to a word processor and it put her words in to written format.

In order to improve her reading, Amanda will use audiobooks to read to her as she follows along with an actual text. She can access audiobooks on audible.com. Yakitome.com will also help Amanda with her reading. This website will read her text as she reads along. She will improve her word recognition by using these two sites.

Curtis

Curtis will use Readability to remove distractions from any online readings for the class. This will help maintain his focus and not draw his attention elsewhere. Because his hyperactivity results in his attention drawn elsewhere during writing assignment, Curtis will use the word predictor application of eType. This will help Curtis focus less on the spelling aspect of writing and more on the content. This will, in all hopes, lead to his assignments being completed in less time.

Prior to writing, Curtis needs to be able to organize his thoughts. Because his attention is constantly shifting, he needs to be able to map out his ideas before he begins to write them. Free Mind will allow Curtis to create graphic organizer before he writes. It will also allow him to create a graphic organizer of main ideas of text as he reads it. When Curtis' attention focuses to

something besides the reading, he does not have to go back to the beginning. He can create the graphic organizer as he reads. Then refer to the organizer for the main ideas of the text.

Two other technology-based programs that will help Curtis are Dipity.com and Comic Life. These will allow Curtis to demonstrate his understanding in a format other than writing. Since he faces challenges with writing, these two programs offer alternatives while he develops his writing skills and increases his confidence.

Curtis will also blog using twitter. This will work well with Curtis because his posts have a low maximum word count. He will finish his writing before his attention changes focus.

Toolbox Implementation

Sally

Sally will use Readability whenever she is reading an assignment online. Most of the readings I will give to her, but there are current event assignments that will require the use of this program. WriteOnline will be used whenever she is required to write anything. Because Sally's writing is illegible, it will be necessary for her to use this application often. Dragon Dictator will be used when Sally is using a computer for anything other than word processing. She has a difficult time reading icons and commands on a computer, so this application will allow her to use the computer with her voice. The magnifier will be used when reading online articles or webpages. Sally will also use the magnifier for looking and reading maps. She can enhance the words to a size that is readable for her. Audible.com will be use the least frequently because I do not assign that much reading from books, but there are a couple chapters from novels that she will need to read. Lastly, yakitome.com will be used when I give her assignments that require the reading of directions or any written works not online.

Mark

Mark will use WriteOnline for any written assignments that he needs to complete. Within this program he will use the word predictor, spell checker, translator, and thesaurus to aid in his writing. Windows Movie Maker, Comic Life, and Voice Thread will be used interchangeably with written essays to demonstrate Mark's comprehension of material. He will alternate using them with a written assignment. Quizlet will be used at the beginning of every unit as a way for Mark to learn the vocabulary of the unit. For the first couple of units, I will create the flashcards for him, but after that he will create the flashcards.

Michael

Michael will use livebinders to organize the material he is given. I will work with him to ensure that he has soft copies of all class material. Organizing the information will help him organize his thoughts. Free Mind will also help him organize his thoughts before he writes. He will use this program as a rough draft of every extended writing assignment he does. Michael will use FoxLingo and eType to improve his writing. He will use both programs whenever he completes writing assignments. Lastly, Michael (and the entire class) will use blogging as a way of practicing their academic writing. This will be done twice a week.

Amanda

Amanda will use readability whenever she is reading from webpages or articles online. This will remove all unnecessary information. WriteOnline will be a major resource for Amanda. She will use this for all assignments that require her to write because of her hand writing. She will use this program in combination with Dragon Dictator to navigate the computer applications and files. Amanda will also use Windows magnifier to enhance images and text so that she can read text, especially maps. I will provide all maps to Amanda digitally so she can enhance them.

Audible.com will be use the least frequently because I do not assign that much reading from books, but there are a couple chapters from novels that she will need to read. Lastly, yakitome.com will be used when I give her assignments that require the reading of directions or any written works not online.

Curtis

Curtis will also use readability whenever he is reading from webpages or articles online. This will remove all unnecessary information. eType will be used when Curtis is typing extended responses, but not for daily assignments that do not require extended writing. Free Mind will also be used for all extended writing assignments, but not daily shorter assignments (like map work). Dipity and Comic Life will be used sporadically as alternative assessments to writing because of his hyperactivity. They will not replace writing, but be used occasionally.

Since I do not have a classroom set of computers in my classroom, these five students will need to either use the computer lab or library for computer access whenever necessary. I will also provide digital copies of all assignments, readings, and maps on my class website. I will also upload audio files whenever necessary for Sally and Amanda. My website will also be enhanced with a Voice Thread explaining how to navigate the website.

In order to implement this plan, I will need to prepare a number of things. I need to establish a professional twitter account that the students can follow and also teach the students how to create one of their own. I need to become an expert in the technology-based programs myself before I can teach the students. A couple of the programs will need to be purchased. I will need to get my school to purchase a license to WriteOnline (or apply for a grant). The training for a lot of these programs is available online on the specific websites or on YouTube through video tutorials.

Evaluation

I will evaluate the students by using writing samples and observations prior to the implementation of this plan and after. The students will be observed for five minutes during lectures, independent map work, independent reading, independent class work, and group work. During this time, a tally will be kept of time spent on task and time spent off task. The writing samples will be evaluated based on their use of geographic vocabulary and their overall quality in spelling, grammar, length, and organization. The writing samples will include blog posts, short answer, map reading, and extended response.

As with the implementation of any plan, I will run in to problems. First, if any of the software programs are no longer accessible or functioning I will need to find another program. Another problem I might experience is lack of student motivation to use the software programs. While the students spend a lot of time on Facebook and YouTube, using education-based software programs is not an easy thing to learn. It will take some time to teach the students how to use the programs to suit their specific needs and work with their strengths. I also foresee problems with the internet connections. The school network tends to get jammed up and the internet functions at a slower pace (sometimes not at all). This may frustrate the students and result in low achievement for something that is not even related to their disability. Despite these potential obstacles I think all of these students will be successful, they will improve their literacy, and they will build their self-confidence to tackle other challenges presented to them.

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