Music College Whitepaper: MusicSwell — Innovative Online Learning is the Future Hope of Global Musical (Social) Values

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ABSTRACT: The limited meaningful content of music made in much of the world today is a reflection of musical (social) values. A radical improvement to the way music is learned carries the promise of changing music and society for the better, empowering more effective music professionals and leveraging significant positive social change within US culture and worldwide, through the musical GroundSwell[1].

Part 1: BACKGROUND

Musical Instrument sales comprise a $7.5B industry in the United States. One sixth of them are guitars and one sixth are music (piano) keyboards. Keyboards and guitars are neck and neck (pun intended, source: NAMM GLOBAL REPORT).

While the importance of music learning and making is becoming increasingly recognized and quantifiable, powerful technological forces have reshaped the Music Industry, top to bottom, such that you can no longer go into a typical music store and buy a horn or hear one on the radio very often and, while consumption has grown somewhat, composers with computers have carved out a large chunk of the business. A turning point was when The Beatles stopped performing in public, because they could no longer recreate their music live. Large bands have become a vanishing species. In a circular descending spiral, they are neither economically feasible nor valued. Consequently, much of the popular music we hear being made and marketed today is not very interesting in terms of musical timbre (the various sounds of which instruments are capable) and music is made by smaller and smaller ensembles.

Unfortunately, the exporting of American culture through music that began on 'high notes' with Jazz and the informal US ambassador to the world, Louis Armstrong, has been so successful that it has crowded out the music of local ethnic cultures in many parts of the world, while descending to the musical equivalent of Jerry Springer, a not-too-bright talk show host who has become the face of America in many parts of the planet. So too, the spread of the problems with what American music has become timbre-wise. We might ask ourselves: "Given the historically cyclical nature of public taste for musical styles, what would it take to return to quality in popular music?" We will explore the surprising answer to this a bit later in Part 2.

But music is much more than just timbre and attack. While the importance of melody has been a common denominator worldwide, harmony has figured much more in the West than in the Middle-East and the Orient (the stereotype that complex rhythm correlates with middle Africa is largely true). In fact, the rise of the importance of harmony in the West parallels the development of the variety of musical instruments that led first to the orchestra and later to dance bands and a wide variety of popular ensembles. But what has happened to melody? I will address this a little

later under the heading "The Importance of Music in Childhood."

It is worth pointing out that the rapid rise of successful industry in Japan since World War II (a culture which appreciates and makes music somewhat more than US culture) can be attributed to two factors: the absence of military and lawyers, and General MacArthur's indoctrination of occupied Japan with the music of the West. They really took the ball and ran with it! No American consumer electronics company has been able to compete with Japan since 1980, when Mattel Electronics fell on account of hubris. From 1946, the end of World War II, this condition had taken only 34 short years; less than two generations. The reason they could really run with the ball was they were sensitive to the human values of the music. Today, the biggest percentage of college music students outside of Boston is in Japan, despite the relative smallness of the country. Imagine how fast the United States could turn around if the government supported musical values, if only for strategic purposes!

The process of cultural assimilation is nothing new. For example, it was largely white kids who preserved the blues in the ‘40s, ‘50s and ‘60s, developing the art-form, preserving and assimilating black speech patterns and expressions and arising from a cultural morality which naturally reacted to their parents' Korean and Vietnam Wars in which they were bound to engage. Fortunately, at that time, their parents' attitudes eventually also became engaged.

A CHILLING EFFECT ON THE QUALITY OF MUSIC IN GENERAL

The reduction in musical timbre has had a chilling effect on music learning and making in many ways, because popular music has become increasingly impoverished and homogeneous on account of the loss of many direct user interfaces for making music (instruments) and the typical sounds with which those controllers are associated (technology-based ones have been poor substitutes). One can successfully argue to a point that, since keyboards are capable of playing any digitized sound you like, they fill the gap for all the missing sounds, but not really. Of the major acoustic instrument classes, flutes, single-reeds, double-reeds, horns, bowed strings, plucked strings, struck strings, percussion, only the last few are thriving today due to the versatility of fretted instruments. In the main, this leaves music keyboard MIDI controllers as the principle means of articulating the sounds of horns, reeds and flutes. But keyboards can't imitate the subtle nuances of the breath and lips that excites such instruments. In this, respect, the human voice is much closer to them (Fortunately, we still have that!). Each of those instruments formerly had an independent human being playing it, so that ensembles of instrumentalists could make musical magic. That can't be done by overdubbing with a keyboard. To some extent, composers using personal computers can impose a 'humanizing' algorithm to a score to introduce a random nature. The musical value is debatable.

These limitations are also exerting a chilling effect on our culture's collective skill DNA: fewer people playing horns and other nearly extinct instruments means a reduction of those skills in the gene-pool. It's known that it takes about 200 years for a skill such as woodwind playing to really establish itself, but may take less time for it to be lost. (Side note: if you want to work nearly all the time, specialize in electric bass, baritone sax and tuba.)

So, to measure the influence of the second brain in a culture, we need look no further than its qualities of music making (it is also evident in religion and politics, but more difficult to disambiguate).

THE IMPORTANCE OF MUSIC IN CHILDHOOD

Let's examine why music is so important to humans.
Mothers universally sing to babies, which communicates directly to each of their functional brains and educates them:

First (physical) brain: safety and entrainment
Second (emotional) brain: self-value, attachment, respectful communication, the 'touch' (sentics) component of the local language
Third (abstract) brain: the syntax and rhythms of the local language
Fourth (energetic) brain: self/other relationship, social-value and fairness, individuality, judgement

Beginning in early childhood, the music of his or her culture informs a chld with increasingly complicated structures built upon and decoded using mother-trained thought-forms encoded in simple song. From 7 to 14, social values solidify. From 14 to 21, a fifth (unifying) brain function *may* begin to appear, the seeds of which go back to early childhood. The success of all these functions is made more likely if the individual has a good musical foundation, a musical environment and reward for music making, particularly singing. Note that the foundation depends on the human voice and respectful communication, a second-brain function.

It's no wonder that children with high musical values do well in school. It's no wonder that children who are encouraged to build on good musical values excel in school. But then we have to qualify what constitutes "building," because the culture's music reflects its social values. If these values coincide with those of the child, he or she will gravitate to traditional forms and their time-proven messages; if not, more modern forms of music will be attractive. The problem is that many of today's modern forms in the US have very little content or meaning and what there is appeals primarily to the first brain. This contributes to a downward spiral of dumbing-down the music and the culture.

NAMM's "Music Makes You Smarter" initiative:
http://www.edu-cyberpg.com/Music/musicsmart.html
http://www.bandusa.com/Newsletter/HistoryNL/09.2005/MakesSmarter.html

As we grow, some of us become very interested in all that music has to offer and we wish to make more and more of it. We emulate in order to understand; we create new music as self-expression; we entertain others as a form of communication; we make music with others as a means of social interaction.

It is a fundamental conclusion then, that the greater the number of musicians who are exploring and consuming the music of their own and other cultures results in fewer soldiers. And vice versa…

But what has happened to melody? Mothers tend to sing to their babies songs from their culture, but the songs of our culture have become increasingly non-melodic and more rhythmic (and not very interesting rhythms, at that). Children now grow up with music in which melody is not prominent. This creates another downward spiral, because melody, even more than harmony, and particularly melody wedded to lyrics, encapsulates the gamut of second-brain world-issues and relationships. Much music is monochromatic in that its timbres are limited and, since a lot of it is synthesized and sequenced, composers have taken advantage of the possibility of digital effects and inhuman articulations, certainly not those of local language. The overall result is that in most households the second brain is currently not educated very well by music.

[Here is an aside: I will never forget the experience of walking the aisles of the NAMM Music Dealer Show in Atlanta in June of 1977 with Music Engineers Mike Beigel and Bob Moog. Suddenly Bob stopped and pointed to the Casio booth, where there were lots of little keyboards. He said, "Someday, it will all be one button." At that same show, I was actually excited to be in on some discussions in which Dave Smith talked about his protocol for hooking computers (commodores and ataris) to his Sequential Circuits keyboards, in order to store up and play back "sequences." This, of course became MIDI and was way before Synare and Passport, etc. Later, in 1985, in New Orleans, (where all we had to exhibit on were 128Kbyte Macs, and Mike Beigel had become my engineer for MusicWorks, we were checking things out and he just said "@%#^ MIDI," because he understood the implications for the incredible loss of the human element in music making that was to come.]

So, we need to regain this function of emotion and music learning and making is the way to do it!

Beyond basic observations of the importance of music, we realize that we are surrounded by music whose purpose is to influence us to consume goods and we also consume music as entertainment. In modern times, the recording of music has made possible an increasing body of pre-recorded music which emodies the culture of past and present. There is a fundamental need for musicians to be increasingly aware of the music of the past, in order to position themselves as its adapters, conservators, recreators and interpretors. At USSCM, we emphasize but don't enforce this, as it cannot be forced.

It should be mentioned that the modern distribution of music from broadcast to ipod has created a much larger venue for musicians to earn a living than ever before, but there is an increasing economic pressure to use 'canned' or previously recorded music, primarily because it is cheaper. This is a factor in the valuation of music going forward. Nevertheless, there is value in live music and it is up to musicians to

support and educate about it. A case in point is the wedding music business, where DJ's have taken over, but where live music continues to set a more emotional traditional stage. An important reason why there is no substitute for live music is that sound reinforcement is inherently synthetic and creates a synthetic vibe. Who will educate about this, if not musicians? It is a difficult but important function because it speaks to the quality of communication.

THE MUSIC BUSINESS

What is it? Ask ten people and you will get ten different answers. This was not so true 100 years ago, when a higher proportion of the population made their own music at home for entertainment and bonding. Since then, people have found a way to make a living in music in a hundred ways that have nothing to do with actually *making* music, yet the music maker is really the most important part of the music food chain. Making music is the primary reason students go to music schools, but there they are often discouraged from doing it, also in a hundred ways.

Part 2: THE PROBLEM WITH HOW MUSIC HAS BEEN TAUGHT

In addition to the chilling effect described above, there is a second, more important factor that affects the state of music in that the traditional ways of learning to play music are counterintuitive and ineffective. Mainstream music education in the United States is mostly an anachronistic conservator of great forms stretching into the recent past, the chief task being to 'flesh out' the data reduction's of printed music. Due to this fundamental goal and their 'upside down' approach to music learning, music schools do not train professionals who can get a job when they graduate in the same sense as engineering or business schools do, but the problem with music education starts much earlier with the basic premise: 'learn to read before you learn to hear and play'. This approach embodies an impedance to success that is, for most, an impossible hurdle. Thus, only the very well-prepared, who will do well in spite of or possibly without schooling are the ones who succeed. One might think that well-prepared music makers comprise the majority of entering freshmen. Not so. Only about 10% of the entering college freshmen can play well enough to get a thorough education and only about 10% of the graduates of typical music schools will ever make a living making music. Music may be the only profession where people go to college and end up as amateurs. This is a negative feedback loop that tends to dampen many things in our society. Consider that if music schools became even 5% more efficient at music making and consuming, it would have a very beneficial effect on our culture, for all the best reasons outlined above.

Q: So, if music colleges don't typically graduate professionals who survive as players in the music business, why do students keep filling them?
A: Because music education is a luxury; it's fun but most importantly, because music develops the second-brain qualities listed above and students want to be emotionally expressive. Very few students are sincere in the illusion that they will strike it rich in the music business. But… if the world were more musical, there would be a bigger market for their work. This, in our view, is achievable. At USSCM, it is our goal to help students be the best musicians they can be, not average.

Although most music colleges are conservatories for the music of the past, there are a few eminent exceptions. These, including the world's largest music school, also employ the best examples of the use of technology in the classroom but the fundamental problem that music is still taught backwards is there and this is without sufficient remedy. This can create a learning environment as expensive as Harvard with only a small fraction of the potential financial upside.

The cure is obvious: there is a need to turn the way music is taught 'right side up' and place the primary emphasis on hearing and playing, rather than on reading and theorizing. The latter subjects can come later much more efficiently, when a musician can 'speak' music but music schools do not require excellence in hearing and playing, because they would lose too many students. However, technology does

offer a solution to dilemma. The re-emphasis has to start with beginning studies, and it has to be based on individual progress at every level; there is not much chance of that happening in the mainstream. But it is already happening to some extent with computer games like Guitar Hero. The trouble is, music making is way more complex than can be learned by parroting. Take away the game machine and there is nothing to do or that can be done. Nevertheless, this is a step in the right direction that has been well-rewarded by popular consumers. The high level of skill required for successful musical expression at a music school and later in the Music Industry can be made more achievable for more students through technology, because it can adapt to the learner's level and pace.

SO WHAT'S GUITAR HERO ALL ABOUT?

The keyboard in the movie "Big,"
(http://www.youtube.com/watch?v=fZRPM1Fn-Aw&feature=related)
(http://www.youtube.com/watch?v=wxwgC8tSglk&feature=related)
(http://www.youtube.com/watch?v=71mWnlJwxUY&feature=related)
(http://www.youtube.com/watch?v=ZHaehQDxBW0&feature=related) has been followed by Martial Arts games
(http://www.youtube.com/watch?v=zQyyGWPAn5M&feature=related) and Dance Dance Revolution
(http://www.youtube.com/watch?v=RDKdrDDTHAQ&feature=related).

The Guitar Hero controller is obviously a bunch of switches attached to a prop in the shape of a guitar, augmented by a game screen where avatars act out performance. What's the attraction? Why is it the biggest selling game ever? A cynical answer might be that it only promises a vicarious thril. However, there is a definite progression of precision in these games. Today, they stop short of musical performance, but tomorrow they may not. Consider the second offering in the series, Rock Band. While the precision is not greater, we now have social interaction and primitive musical meaning (http://www.youtube.com/watch?v=sm3jrYtz8tE).

Recall that, by dollar volume, keyboards and guitars are 'neck and neck'. Acoustic pianos equal about 33% of the guitar market in the US. While they are much more expensive than guitars, that's still a lot of pianos and there are a lot of playable pianos in the world already. But where are the piano games? This ought to be a no-brainer, because keyboards are so much easier to hook up to computers and MIDI keyboards have a head-start over MIDI guitars of over 20 years (Right?). It turns out that it's not so simple. While this will be addressed in a forthcoming whitepaper, mentioned below, note that the guitar games lack musical complexity; they are 'one-trick-ponies'. At the same time, MIDI guitar controllers have tremendous technical hurdles, not the least of which is price. For this reason and because it requires multiple players, we don't expect Band Hero to go very far as a toy. It's mostly vicarious thrill and very little musicality. As far as the future of guitar controllers, only wired fret approaches are likely to be cheap enough and accurate enough to compete with keyboards, but no one has successfully overcome those technical issues either.

Take a look at the Guitar Zeros to see what musicians may do to bridge the gap
(http://www.youtube.com/watch?v=vbpZBQ7jXgI)
(http://www.youtube.com/watch?v=uxzPCt7Pbds). Nevertheless, while it may intrigue for a little while, that won't fly for players of keyboard or even intermediate guitar. Perhaps we might give this pony a rating of two 'tricks' out of a possible five.

SOLVING THE DILEMMA WITH TECHNOLOGY

Families where music is made routinely or those in which music is greatly valued provide a great environment for learning musical expression. In these, it can be natural, as with language. But, while we don't seem to have much control over the family we are born into, we may be independently attracted to music making, possibly as a result of genetic predisposition. Then too, music may be occasionally taught in a more normal way by isolated teachers who take the time and have the skills to motivate, but most individuals require a more immersive atmosphere than is provided by occasional lessons. They require an atmosphere something like the one in which they (more or less recently) learned to talk, but most teachers seek refuge in the 'upside down' approach by which they themselves were trained. It is only a matter of time until one-on-one computer programs for music learning begin to interact naturally. These will appear first with language training such as Auralog Tell Me More.

US School of Commercial Music has divided the problem into two levels (pre-college and college), with three parts each (Ear Training, Performance and Academics).

Pre-college solutions will be discussed in a forthcoming paper: The USSCM Lucky Project. (Within every decade since 1980, there have been a couple of programs which aim to teach music performance with a computer. With the possible exception of SmartMusic, these programs fail to rise above the mundane beginner level.)

Part 3: USSCM'S COLLEGE APPROACH

The principle of 'right side up' music learning adopted by USSCM takes some of the best aspects of technology, weds them with traditional musical values and applies them to contemporary music in a natural order. Theory is included, but it takes a back seat at first to listening and performance skills acquisition.

"US School of Commercial Music is the only online college of music that offers worldwide study leading to diplomas in contemporary music. Start up the day you are ready and learn in one third the time at one tenth the cost of the leading residential college."

"USSCM'S motto ("Master Music At Home") means that you help design the program best for you and then study affordably from home or on the road anywhere in the world. Earn a Music College Diploma or a Music Industry Certification via USSCM's unique distance learning online music education programs which combine Performance, Improvisation, Schillinger System, SongWriting, Arranging, Media Scoring and Music Production."

In order to make good on these promises, a whole new approach to music learning had to be devised. USSCM training incorporates proprietary software to reduce turn-

around and encourages each student to progress at his or her own natural pace. An important benefit of the software is that it allows USSCM faculty to initiate responses to homework in near-real-time, while imposing certain disciplines to help the student move through the material. There is also a difference in the timeliness and quantity of material from that of traditional schools, in that it is more copious and more frequently revised to include the latest, most relevant methods. Both features yield a significant time savings for precocious students. This is a crucial factor in today's music business where youth is valued. Faster progress means fewer 'burnouts'.

At USSCM, students are encouraged to design a program that suits their own interests by assembling a series of Modules, each of which is comprised of four 'microsemesters'. Each microsemester may be completed in from one to two months and covers the heart of the material associated with a college semester, without excess 'busy work'. Since all homework is recorded, there is enough feedback to assure that there are no gaps in the learning process.

Having a more logical unified approach allows USSCM students the luxury of working on both keyboard and fretted instruments, which comprise the lion's share of today's music-making. Students who wish it and are capable are encouraged to also apply their USSCM studies to a horn or bowed instrument at the same time. Finally, percussion studies are incorporated and applied to the melodic instruments. The result is a well-rounded perspective which suits the demands of the modern music world. After completing the studies associated with the Performance Module, students are well-equipped to complete the assignments associated with the advanced Modules of their program.

INCORPORATING TECHNOLOGY

The use of the internet for what it does best (asynchronous frequent communication) is a very important feature. Some schools run software that emulates the classroom. While that may be useful for courses which require lecture, it subjects students to the least effective things about classroom learning and thus impedes progress in a field which requires much personal 'woodshedding' (musical skills acquisition through drill).

A second consideration concerns pedagogy: whereas physical classroom-based learning places peers together, a situation above which it is difficult for the individual to rise, USSCM consistently incorporates the best professional recordings and the best musical examples of the past. The students play relevant material with only professional backing and benefit from the best recorded models from the stylistic literature of world music.

In addition to leveraging what is perhaps the most compelling feature of the internet, asynchronicity, USSCM students record (and have reviewed) more homework than do those of other schools. This translates to more experience and a better educational value for the students' investments of time, attention and money. Recording of homework is via computer without consideration of production values which are less important for most learning. This saves the down and uptime that would be lost by processing audio and compressing files. USSCM graduates may be thus better prepared for the demands of the workplace and their artistic muse.

FUTURE

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About the Author

John Amaral is a Music Industry manager and consultant, who has founded several businesses and provided numerous innovative solutions for higher learning and music technology, ncluding input to the MIDI standard. By the age of 20, he had worked with hundreds of Hollywood musicians and recording artists for Bill Putnam's United and Western Recorders. Amaral is a former professor of Berklee College of Music in Boston. He holds degrees in Electrical Engineering, Music and Finance.

About the US School of Commercial Music

Building upon principles originated in 1915, US School of Commercial Music continues a rich tradition as the oldest, most trusted name in distance music learning. Beginning in 1995, USSCM was the first institution to offer a college-level commercial music Diploma Program via online technology. Today, USSCM offers Diploma Programs in every major category of commercial music, as well as unique proprietary Certificate Courses with content unobtainable elsewhere. Recognizing that each music student has unique needs, USSCM's Matriculate™ online technology gives students the unparalleled flexibility to design the exact program they need by sequencing seven basic areas called "Modules": Performance & Improvisation, Schillinger System/LineWriting/Music Business, Advanced Improvisation, Melody/SongWriting & Linear Counterpoint, Arranging & Orchestration, Media Composition & Scoring and Music Production & Engineering. Each Module consists of 4 microsemesters of concentrated studies.

At the start of each microsemester, US School of Commercial Music students receive a large package of customized materials covering all their study subjects. Projects are recorded and returned to the college via the internet for rapid feedback. According to Professor Amaral of USSCM, "Choice and flexibility are great reasons to choose USSCM for your commercial music education." He continued, "USSCM has an approach unlike any other: It mixes proprietary materials with the best of published materials, which are evaluated and upgraded twice yearly. There are no distracting non-music 'academic' subjects, such as English or History. There is no internal competition for resources between a 'bricks and mortar operation' versus 'online' USSCM has only one agenda: a student's rapid progress on a "microsemester" pace, rather than keeping him or her in a too-lengthy "semester" program. Students work in all four rhythm section instrumental areas each microsemester. Students record homework in each subject. Feedback about homework is greatly facilitated by online communication and often seems immediate. USSCM tuition is realistic, with generous scholarships and discounts. USSCM programs offer students a level of choice and customization very difficult to achieve and manage with a 'classroom' model of course delivery."

US School of Commercial Music is the most economical way to acquire the

knowledge and skills a commercial musician needs to compete and 'collect a paycheck' in today's noisy musical environment. USSCM students save considerable money by studying at home, anywhere in the world, and they may actually get a better education than at typical 'bricks and mortar' schools. While there is no substitute for working with fellow students shoulder to shoulder, student peers are seldom professionals. In comparison with many other schools and other approaches to commercial music study, USSCM exposes each student to a higher quality of music information, better accompaniments and professional presentations, because it upgrades materials on a semi-annual basis, with the primary requirement that it be the best information and most effective presentation available. By rising above the typical noise in music education, USSCM saves its students time, money and energy.

At www.usschoolofmusic.com, prospective students may read about course offerings, initiate inquiries, design their program, determine tuition costs, scholarship elgibility, financing options and aid, fill out and submit their application, print their learning agreement for faxing, and much more. Also from the college homepage, students, alumni and industry professionals may access several useful resources: Music Industry News, USSCM News, MI Jobs, USSCM Forum and USSCM Internet Radio.

For more information, please contact US School of Commercial Music
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[1] *GroundSwell* Forrester Research