INTERNET SYMPHONY No. 1: RETHINKING THE ORCHESTRA AS A VIRTUAL COMMUNITY¹

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SUMMARY. The article outlines, from a historical and sociological perspective, the evolution of the Symphony Orchestra from its origins (*Vingt-quatre violons du roi*) to its most recent incarnation as a product of current information technology: the *YouTube Symphony Orchestra*. The project recreates the ensemble as a virtual community, exploiting advances in technology to convert the artistic act into a *transmedia* product; it includes a selection process by video and e-mail, and online educational assistance for the musicians, followed by the video 'mash up' of selected candidates, constituting the final version of Tan Dun's piece *Internet Symphony No. 1*. Not being a single case, it has a 'vocal' equivalent in Eric Whitacre's *Virtual Choir*, which is in fact a mix of 185 tracks individually recorded. The interaction between musicians is redefined within a multiplicity of contexts, providing a new framework for conceptualizing the artistic act as a matrix of integrative "multi-track creativity".

Keywords: Internet, Symphony Orchestra, YouTube, Virtual Choir, Digital Technology

The YouTube Symphony Orchestra, as The Times of London defined it, is supposed to be "the most delightfully incongruous alliance of the arts and internet yet to emerge in the 21st century"³. Whether we recognise it as a bizarre, pointless one-off occurrence, as a kind of "hard wired Eszterhazy Palace" for our times, or as a means of worldwide dissemination of an artistic act, the phenomenon can not be ignored. It reflects a major shift in our cultural life and fuels an upward spiral toward new forms of culture.

¹ Portions of this article appeared in Bianca Ţiplea Temeş, *Quo vadis, Orchestra simfonică? Traiectoria unei entități artistice între "La Grande Bande" şi "YouTube Symphony Orchestra*", in "Intermezzo", no. 3/March, 2009, Ed. MediaMusica, Cluj, pp. 28-31.

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³ Cited in Marque Owen, *A Very Grand Finale*, Telstra Exchange Community, April 6, 2011.

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Seeking a historical parallel, we could compare the advent of digital technology with the impact the steam engine had at the beginning of the industrial era or with the invention of the photo camera on painting. The modern technology today turnes the whole aesthetical establishment upside down, even though it representes merely a tool or distribution platform for sharing and revitalizing classical music. But in order to assess the phenomenon in a wider context, a short historical overview is necessary.

Almost four centuries have passed since, in 1626, the *Vingt-quatre violons du roi* from the court of Louis XIII, accompanied by the ensemble *Les Douze Grands Hautbois de la Grande Écurie*, came together to form *La Grande Bande*. This is perhaps the nearest equivalent of the first symphony orchestra, in the current sense of the term, which played a central role in a musical provision for the official festivities and events of the Versailles Court⁴. What distinguished the *Vingt-quatre violons du roi* and *La Grande Bande* from other ensembles of the age (Italian, German, English, and Spanish) was the manner in which they configured their strings in five sections instead of four⁵, which gave the band an unmistakable sound. From high to the low pitches the orchestra comprised 6 violins (*dessus de violons*), three types of viola (4 *haute contre de violons*, 4 *tailles de violons*, 4 *quintes de violons*), and 6 *basse de violons*.

During the second half of the 17th century, the prestige of this ensemble conducted by Lully, and also the fame of Corelli's equivalent ensemble in Rome, served as models for other cultural centers, transforming the orchestra into a pan-European phenomenon. London, Vienna, Turin, Stockholm, and Stuttgart were among the first towns to adopt this example within the same social ambit of the courts of the nobility, adding to their ceremonies an obligatory touch of pomp. Expressed in the terms of a marketing strategy adequate for the age, it is safe to say that these

⁴ Although between 1577 and 1582 the musicians of the *Florentine Camerata* had opened up the perspective for musical innovations in the sphere of the dramatic genre, the instrumental group that the composers of the *Camerata* used consisted of a small number of viols, lutes, and for the *continuo*, harpsichord or organ. In 1607, the year of the premiere of Monteverdi's drama *Orfeo*, a moment that can be said to mark the birth of opera as a genre, one cannot yet talk about the existence of an orchestra in the current sense of the word. Monteverdi himself refers to his ensemble in the score by means of mere numerals: "33 stromenti." The manner in which these were used was very different from what is understood today by the concept of an orchestral ensemble; the strings, 10 in number, do not at this point form a single section, while the instruments, regardless of their respective family, often appear on stage or behind the scenes. Not even the almost twenty theatres that were already functioning in Venice by 1652, and which often presented *dramma per musica* or *dramma giocoso* performances, had an ensemble with the musical function of an orchestra proper.

⁵ From high to the low pitches: 6 violins (*dessus de violons*), three types of viola (4 *haute contre de violons*, 4 *tailles de violons*, 4 *quintes de violons*), and 6 *basse de violons*.

orchestras embodied, for a limited but influential audience, the "mirror" in which to reflect the wealth of the court and the nobles governing it.

In the 18th century, permanent orchestras functioned at the main courts⁶ and as part of the theatres of Europe⁷ (Paris Opera or Gewandhaus as examples). An obvious homogenization process started to take root within the ensemble's structure, of the instruments used, of performing style, and in repertoire.

The period that marked an irreversible transition to public concerts and the increasingly visible standardization of the symphony ensemble was the second half of the 18th century. This evolution process is again connected with France: the first series of public concerts provided by a stable orchestra was settled between 1725 and 1790 by the *Concerts spirituels* Society⁸, whose performances covered those periods of the year in which the religious festivals forbade the Parisian Opera to appear on stage with its own productions. Hard on its heels, and along the same lines, came the *Grosse Konzert* of Leipzig (from 1743) and the *Bach-Abel* concerts performed in London (from 1765), all of which were financed out of ticket sales. We are now witnessing a final transformation of the orchestra, from a princely luxury into a middle-class cultural commodity, and its transition from the private to the public sector, as well as a reconfiguration of its structure and of its role in society.

The Industrial Age established the definitive institutional legitimacy of the symphony orchestra⁹, defining its function within a socio-cultural context and democratizing to a great extent the artistic act. Moreover, in this form the orchestra represented the perfect cultural isomorphic social metaphor. This term is fully justified from the standpoint of the manner in which the orchestras were organized, from the size of the instrumental ensembles, the venues in which the concerts were performed, and even the concert dress, which from thenceforth become a "uniform," accepted

⁶ A prime example is Prince Esterházy's orchestra, for which Haydn composed a large number of works. Also, the Mannheim Orchestra became an avant-garde model in its age, not only from an artistic point of view, for the innovations it brought in terms of performance, but also because its make-up: the ensemble, with an international constitution, consisted of artists coming from the Silesian Chapel of Carl Philipp's court, from orchestral formations from Innsbruck and Düsseldorf, but also from countries such as Belgium and Italy.

⁷ In 1744, the Paris Opera was one of Europe's largest orchestras, and later, along with the Gewandhaus of Leipzig, it became the forefather of the modern orchestra.

⁸ In the beginning, the concerts were performed in one of the most sumptuous halls of Tuileries Palace (*Salon des Suisses*), and as of 1784, in *La Salle des Machines,* in the same building.

⁹ A fundamental book in this sense is Alvin Toffler's *The Third Wave* (William Morrow, New York, 1980). By means of this pioneering title in sociology, the author emphasized the parallel that exists in the ways that both factories and orchestras operated in the Industrial Age.

and adopted throughout Europe¹⁰. It is the kind of orchestra for which composers such as Beethoven, Mendelssohn, Berlioz, Bruckner, as well as the vast majority of 20th-century composers wrote their masterpieces, crowning the orchestra as central to European cultural life.

The impact of technological progress in terms of recordings and their influence on the history of the orchestra calls for a separate chapter in its own right, to indicate chronologically the path from Edison's cylinder, through radio-TV recordings and broadcasts, to the dissemination of music on vinyl records, CD, and, more recently, DVD. Such a chapter could not ignore two emblematic artists of the 20th-century who, sensing the potential of the latest technical breakthroughs propelled and took full advantage of the fusion between music and technological progress: they are, perhaps not accidentally, two unparalleled conductors - Herbert von Karajan and Leonard Bernstein.

The turn of the 20th century influenced the destiny of this versatile, albeit costly collective artistic entity; an economic diagnosis would indicate an evident imbalance: the costs for maintaining such ensembles are currently far higher than the available number of supporters and sponsors. From a purely statistical point of view, on an international level, one notices a drop in the number of concert-goers, the clear predomination of a graying audience, and the scant participation of the younger generation, all of which may constitute a symptom of the decline in popularity of the symphony orchestra, at least in its old-fashioned constitution, a fact predicted by Alvin Toffler, many decades ago.

So how can it compete against the explosion of information technology and the invasion of a multi-faceted media? How might it respond on the one hand to the fragmentation and on the other to the diversification of the "cultural marketplace?"



"YouTube Symphony Orchestra": Play your part in music history!

¹⁰ The uniform could be seen as an accurate reflection of the new type of mass-production in the case of commodities.

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It was under this slogan that a project was launched whose aim was to set up the first online orchestra in the history of music. Its members would be selected based on videos posted on the internet by prospective candidates. The facts are well known today: between December 2008 and March 2009, 90 players were selected from 3000 video applications, organized by YouTube. The age range was between 17 and 55, representing 30 different countries around the globe. How far we now are from the elitism, as well as the restrictions of gender and ethnic uniformity of certain orchestras such as the Vienna Philharmonic during the 20th century! (Incidentally, the music school of Cluj is proud to be represented in this worldwide endeavour by Gh. Dima Music Academy lecturer Titus Flueraş, in the role of concertmaster, no less!)

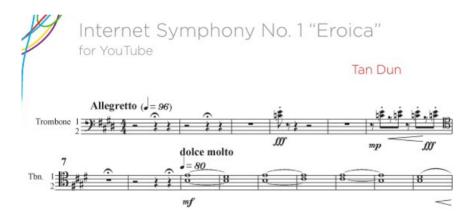
The main outcome of the project was a concert given on April 15, 2009, at Carnegie Hall in New York, conducted by Michael Tilson Thomas ¹¹. The event was posted the following day on YouTube – "the world's largest stage," as the composer Tan Dun ¹², another major figure directly involved, put it. However, a further step forward must be sought beyond the Carnegie Hall concert, especially in the technical sphere. If the already widely used e-books, electronic encyclopedias, and magazines are accepted as an integral part of contemporary cultural life, it is only natural for music also to take its place as part of latest breakthroughs in information technology. Supported financially by U.S. company Google (a modern form

¹¹ Michael Tilson Thomas The is chief conductor of the San Francisco Symphony and is acknowledged worldwide for promoting classical music via contemporary media. He conducted the New York Philharmonic in the TV series Young People's Concerts, on the model of his mentor Leonard Bernstein's example in the 1905s and 60s, and he has recorded DVDs with TV shows and created online educational programs under the title *Keeping Score*. Tilson Thomas has also perfected a system of high-tech pages, by means of which the listeners can follow the score as it is being performed, and to pause in order to receive the conductor's insights at certain moments of the work.

¹² Chinese composer Tan Dun is a disciple of Toru Takemitsu and of Edgar Varèse (in the U.S.). Among his most important works are *Ghost Opera*, premiered by the *Kronos Quartet; Orchestral Theatre*, which consists of three hours of orchestral exploration by multimedia means; and *Symphony 1997*, premiered by Yo-Yo Ma, together with the Imperial Bells Ensemble from China, and the Hong Kong Philharmonic Orchestra. He is the author of the opera *Marco Polo*, based on a libretto by Paul Griffiths, as a commission of the Edinburgh Festival, premiered in 1996, as part of the Munich Biennale. His work is acknowledged by many distinguished artistic personalities: in 1995, he was selected by composer Hans Werner Henze as a member in the jury of the international competition for theater music in Munich, and, in 1996, he was selected by Toru Takemitsu for the Glenn Gould Prize in Music and Communication, which he received in Toronto. Artistic director of the prestigious Tanglewood Music Festival, he is also the winner of an Oscar in the year 2000, for the soundtrack of the motion picture *Crouching Tiger, Hidden Dragon*, directed by Ang Lee. Tan Dun was also the composer of the music heard during the medal ceremonies at the 2008 Beijing Olympics.

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of cultural patronage!), which commissioned the piece Internet Symphony No. 1 – Eroica from Tan Dun on this occasion, the project makes use of the latest technological methods: musicians of the London Symphony Orchestra - representing the orchestra in its traditional form - provided online teaching assistance to the selected participants, in the nature of conventional masterclasses. "It has been a remarkably exciting process reviewing the many contributions from around the world", said Mr. Tilson Thomas in an interview, adding: "It's been a real window on the lives of music lovers everywhere who have auditioned in their dorms, practice rooms, on stages of neo-classical theaters, apartment house lobbies, on gorgeous Italian fiddles and old upright pianos". Ex. 1



Composer Tan Dun in turn prepared video recordings to provide assistance, by conducting his own work, in the abstract, for all different sections of the orchestra. It was not only the judgement of Michael Tilson Thomas and the members of some of the most prestigious orchestras in the world¹³ that was deployed in the assessment of all the videos, but also that of the general public, who became engaged in the project by voting via the Internet for their favorite players on the list¹⁴ of semifinalists. The spirit of innovation was, however, pushed beyond even these frontiers: the video recordings of all the selected candidates were later superimposed in a mash-up and transformed into the final YouTube version of Tan Dun's piece¹⁵, turning the orchestra itself into a virtual community.

¹³ Among them, the London Symphony Orchestra, Berliner Philharmoniker, San Francisco Symphony, New York Philharmonic, and other prominent ensembles. ¹⁴ Statistics indicate that the voting action attracted over 13,000,000 visits on YouTube.

¹⁵ See the article signed by Daniel J. Wakin - Getting to Carnegie Hall via YouTube, published in the New York Times on December 1, 2008.

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Does this musical incarnation of current information technology transform in the future the symphony orchestra into a musical cyborg? It's hard to predict, but this initiative (which some called the most expensive amateur orchestra in the world) has not remained unique. Its vocal equivalent is already underway in the form of Eric Whitacre's *Virtual Choir*, which is in fact a mix of 185 tracks individually recorded and then combined by projecting the separate videos simultaneously.

Ex. 2



The Virtual Choir

The interaction between musicians in this case no longer takes place in real time. In fact it is a solitary activity, and this kind of "office / cultural work from home" redefines in many ways the artistic act, providing a new framework for understanding it as a matrix of integrative "multi-track creativity". Eric Whitacre himself, rather than regarding it as a sterile way of making music, acclaims the "poetry" of the situation, being impressed by "all these souls, all on their own desert islands sort of sending messages in bottles to each other". The experiment, which as the composer/conductor himself said "went viral", proposes a new type of closeness and human experience in artistic endeavor, reaching out to one another via satellite.

Moreover, this ensemble, called by Emma Pomfret a "digital beast"¹⁶ has been described as en ensemble which "kicks over every barrier you can imagine; an interactive, digital community open to thousands of

¹⁶ Emma Pomfret, A potent mix of composerly skill, anti-elitism and great hair, Eric Whitacre is about to wow audiences this summer, in "The Times", London, August 7, 2012.

participants — besides the four million and counting who've watched it on YouTube. No wonder orchestras, among them the Berlin Philharmonic, want it."¹⁷ Eric Whitacre himself explained that "Classical concerts have become an incredibly passive experience"¹⁸, and therefore as a composer he tried to offer the audience an ecstatic experience instead by means of this virtual choir.

It is possible for the YouTube Symphony Orchestra or the Virtual Choir initiative to remain an one-off thing of its time, a quaint and daring eccentricity that transforms what some might regard as the obsolete traditional ensembles into a modern component of the virtual agora, accessible from every corner of the world and open to the interactive involvement of all music-loving users. The - perhaps ephemeral establishment of this ensemble must be seen from the perspective of an attempt to reconcile classical music with the latest technology. It goes without saving that this heralds a new stage in our cultural evolution, under the auspices of the new instruments of IT expansion. In the artistic act, the internet becomes a quasi-permanent bridge between the orchestra or choir and its public, an efficient element of cohesion between performer and meta-receiver, proving to be an excellent means to convey the musical tradition. It brings the artistic act to new heights: it broadens the possibilities as far as access, broadcasting, and processing of information are concerned, and in the foreseeable future it will be replacing with interactivity the unidirectional flow of media broadcasting previously described as "classical". This new form of presentation and of relating to the community has the capability to revitalize the concepts of orchestra, symphony concert, or opera, which in the light of the new technical means, become a genuinely open source, around which new concepts start to gravitate, such as virtual listeners, the musical blogosphere, digital sales or controversial internet downloads and file-sharing networks.

Now, at the beginning of the 21st century, music embarks upon an Internet adventure and finds a place for itself in cyberspace, facilitating greater participation, and increasing the complexity of the artistic act, but, as a tradeoff, taking the risk of diminishing the authenticity of the old fashioned concert experience by replacing it with virtual reality. Sceptics interpret these new breakthroughs in information technology as being responsible for an alarming deterioration on the cognitive and emotional level. The use of technology is encroaching at an unprecedented rate upon the artistic world, shaping our perceptions, (possibly reducing also our attention spans) and redefining our aesthetic reference points in a radical

¹⁷ Ibidem.

¹⁸ Ibidem.

way. The YouTube Symphony Orchestra initiative emerges as a distinct articulation of the current cultural diversity, perhaps as an alternative solution for the music lovers of the new century, and, no doubt, as an avant-garde action that assumes in its subtext an educational mission on a planetary scale. Whether ephemeral or epoch-making as Michael Tilson Thomas stated, the YouTube Symphony Orchestra experiment "is creating a platform for creative dialogue and instruction".

It is within this context that the question "Quo vadis, symphony orchestra?" finds its legitimacy. Is the Internet Symphony no.1 just an Overture to a new type of repertoire? The evolution process always adapts to a sequential model of de-crystallization, transition, and re-crystallization on a new level (the last phase being currently accelerated exponentially due to technological progress). A forecast cannot but be based on the scenarios that take as a starting point the analysis and decomposition of the known variables. The identification of the evolutionary tracks is already made by real technical data, which reconfigure the borders between different art forms; numerous multi-media organisms and projects pertaining to the New Media Art trend converge upon the investigation of new sounds meant to complement or even aradually replace the traditional instruments of the symphony orchestra¹⁹. Ars Electronica 2000, Hyperinstrument Group at MIT Media Lab (with their project Brain Opera), the Art+Com Institute in Berlin, Kunsthochschule für Medien in Cologne, and the Fraunhofer IAIS Institute near Bonn need to be mentioned here. Also, projects like Artistic Interactivity in Hybrid Networks (conducted by Jin Hyun Kim and Uwe Seifert), EU-ICT SAME (Sound and Music for Everyone, Everyday, Everywhere, Every Way)²⁰, come to complete the current panorama of music investigations, to trigger a genuine "mediamorphosis", and, in the end, to convert the artistic act into a "transmedia" product.

As far as the creation of virtual instruments is concerned, mention must be made of the case of composer Goto Suguru who, in collaboration with Patrice Pierrot and Alain Terrier, conceived, in 1996, at IRCAM, a virtual violin called "SuperPolm," in order to perform the piece *VirtualAERI* by the aforementioned Japanese musician²¹.

¹⁹ One of the pioneers of this movement is the American composer John Cage, who, in 1954, conceived the work *Imaginary Landscapes No. 4*. It is an early example of music that uses a non-traditional electronic instrument: the piece is written for an "orchestra" of 12 radios and 24 "performers," in which one person controls the volume while another controls the tuning frequency for each radio.

²⁰ Their research platform is described as: "Novel Mobile music applications, allowing new forms of participative, experience-centric, context aware, social, shared, active listening of music".

²¹ See Goto Suguru - The Aesthetics and Technological Aspects of Virtual Musical Instruments: the Case of the SuperPlom MIDI Violin, in "Leonardo" Journal No. 9, 1999, pp. 115-120.

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Ex. 3



Goto Suguru's SuperPolm violin

An even more revolutionary initiative is the Orchestra Explorer program ²²– a new paradigm for active musical listening in an age in which the term *broadcast* is deposed by *webcast*. The program allows the users not only to navigate inside a virtual orchestra, but also to analyze the work being performed, to shape the sound and the musical content by means of the operator's gestural and bodily movements.

None of these innovations eliminate the traditional symphony orchestra though, even if the current economic realities have led to their global weakening. There are still enough ensembles to keep the tradition alive in an age defined by the hypertextuality of the cultural trends. There are numerous independent orchestras (such as *Academy of St. Martin in the Fields*, John Eliot Gardiner's *Orchestre Révolutionnaire et Romantique*,

²² The project was made public at the exhibition *Cimenti di Invenzione e Armonia*, organized at the Casa Paganini in Genoa, between October 2006 and January 2007. See Camurri, Antonio; Canepa, Corrado; Volpe, Gualtiero - *Active Listening to a Virtual Orchestra through an Expressive Gestural Interface: The Orchestra Explorer*, in "Proceedings of the 2007 Conference on New Interfaces for Musical Expression" (NIME07), pp. 56-61.

and other temporary, "modular" symphony ensembles, centred around a specific artistic endeavour).

One also might point to certain divergent tendencies: alongside the entire arsenal of technological inventions that are meant to transform the orchestra, for the most conservative music lovers, into an "acoustic mutant", there is the reconstruction of the *Vingt-quatre violons du roi* (the "Berlin Philharmonic of the 17th century", as Patrick Cohen-Akénine called it) which was announced publicly in France.



Cover of the Sponsorship Project for the reconstruction of the ensemble "Vingt-quatre Violins du Roi"

This came as a strange chronological coincidence, in that it took place at the same time as the YouTube Orchestra was officially launched. Like Borges' character Pierre Menard²³, who, four centuries later, rewrote

Ex. 4

²³ Borges, Jorge Luis – Pierre Menard, autor del Quijote, in "Ficciones", Emecé Editores, Buenos Aires, 1974.

Cervantes' chivalric novel *Don Quijote* word for word, the Baroque Music Center at Versailles, beyond a simple rhetorical eulogy of history and beyond any deliberate anachronism, revitalized an old ensemble, with recreated period instruments, after almost 400 years.

Hervé Burckel de Tell, the general director of the afore-mentioned Center at Versailles, started the action, commissioning from Antoine Laulhère and Giovanna Chitto the manufacture of the 6 *dessus de violons*, 4 *haute contre de violons*, 4 *tailles de violons*, 4 *quintes de violons*, and 6 *basse de violons*. The conductor of the *Folies Françoises* orchestra, Patrick Cohen-Akénine, has already been acclaimed for his initiative with the inaugural concert of the *Grandes Journées Lully* Festival, which took place at Versailles in the autumn of 2008. As he stated, the project was akin to another notoriously difficult task: the restoration of an old painting.



Inaugural concert: Grandes Journées Lully Vingt-quatre Violons du Roi, Versailles, 2008

Supported by the Ministry of Foreign Affairs and by *Culture France*, the members of this ensemble, with their historical instruments, defied the most spectacular technological breakthroughs by undertaking a major concert tour, in France, Belgium, the United States, and Japan, proving that such a project could still attract an audience on a large scale. In an age that advocates a new 238

Ex. 5

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system of cultural metaphors, the *Vingt-quatre violons du roi*, *YouTube Symphony Orchestra* or the *Virtual Choir* prove that the dichotomy old-new does not necessarily imply conflict, and that the avant-garde need not clash with our traditional values. They coexist, offering a counterpoint to one another, stratifying the offer and multiplying our selection options. While the new *Vingt-quatre violons du roi* provided a history lesson, the *YouTube Symphony orchestra* afforded the counterpoint of a futurology masterclass, even if the verdicts of the critics were rather negative, calling the event "a gimmick"²⁴. Together they represent two polar and at the same time complementary approaches to the artistic phenomenon that is the orchestra, in the polymorphous contemporary cultural landscape, meeting in the concept of "artistic event". It worships, as Henry Jenkins puts it, at the altar of convergence in culture between old values and the digital revolution, providing a harmonious reconciliaton with the world's new identity.

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²⁴ Michael Tilson Thomas himself named this experience as being "at the same time a classical concert, a summit, a scout jamboree and a speed date", *YouTube orchestra plays Carnegie Hall*, in "The Times", London, April 16, 2009.

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