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Towards An Analysis Of Use Of Information Technology And Computer Softwares By The Musicians During Corona Days

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Abstract

Complete banned on formal educations and social gatherings urges the technology based solution to address the thirst of musicians. Musical professional, amateur and students had no ideas of sharing knowledge during the lockdown periods. Any struggle during the corona days was undependable and untrustwothy without any proper case study.The survey was organized to sort out the impact of technology for musicians during corona days.Quantitative research method was expoited to write down the data and significance of the resutls was tested by chi square test.The research elaborated significant differences for Webchat, phone, Email and Video conferencing except Social media for way of contacting by the musicians during corona days.Technology used by musicians showed significant differnces for Phonograph, MIDI Controller and Auto-Tune except Electric Guitar, Multitrack Recording during the corona days. Ableton Live, Apple Logic Pro X, Avid Pro Tools, Cockos Reaper, FL Studio exhibited significance differences for softwares used by musicians during the corona days. Barriers faced by musicians during chorona days like Language barrier, Funding problems, Software training isssues, Internet copyright and royalty issues except Low turnout showed significance differences for all the musicians.Non significant differences for social media in contacting, electric Guitar and multitrack recording in techology showed that the musicians preferred technology during the corona days. Low turnout was the barrier faced by all the musicians.The paper not only provides the guidelines for boosting of the musical industries during lockdown period but also helps musicians in sharing of knowledge using the technology.

Keywords: Corona, information technology, softwares, Multitrack

Introduction

Norms of learning are directly affected by the technology (Czerniewicz & Haupt, 2018). Conventional methods are continoulsy changing due to adaptation of technology (Kaware & Sain, 2015). Introduction of technology in mobile devices has confined all kind of activities at a place (Anderson, 2016). These technologies will flourish more in future in developing countries (Poushter, 2016). Android mobiles are preferred instead of laptops and tablets to access the internet (Anderson & Horrigan, 2016) .Technology has provided a tactical response to the people having strong believe in conventional methods (Swartz, Gachago & Belford, 2018). The learning process in music is the sounds men produce (Merriam, 1964). A music-specific technology brought by PC innovation in all types of melodic creation, conduct and perspectives has changed the music and music creation (Enders, 2000). Music presents a rich arrangement of plan objectives and models for composed articulation. Customary music documentation advances to indicate melodic structures that were pretty much fixed in structure. Music documentation contains control structures, for example, repeat and discretionary endings that are similar to present day programming languages (Jin and Dannenberg, 2013). Recently, technology, sound and music have fashioned a solid association. All parts of the procedure, from creation to appropriation and utilization have got advancement. The quickly changing models of the Information Society have produced sound impact on sound music computing (Castells, 2000). The change has been observed for instrument, sound gadget producers to service ventures, sound and music data suppliers (Kusek and Leonhard, 2005). Berz and Bowman (1994) monograph described the positive role of new technology innovations for musical teachers and students. Now a days, internet based information is the worth exceptional note (Field, 2001). It determines the societal interests in utilizing the internet as a significant method to expend music (Latonero, 2003). Barry (2003) studied the role of electronics into musical research instructing, recording periods of coordinations and online performances. Considering the need of project, following objectives are set 1) the best ways of contacting by the musicians during the corona days. 2) which kind of technology and softwares are peferred by the musicians during corona days.

Material and methods

The survey was conducted to analyse the role of technology for the musicians during the corona days. The quantitative research methodolgy was used to record the data. Bryman (2006) described the importance of quantitative research as it elaborates the generalization about the studied population. The questionnaire was used to collect the informations that were further analyzed by Chi Square test to check its significance.The study was carried out among the musicians having professional, amateur and student levels. The population consisted of 150 musicians having equal representation. A questionnaire was provided to

the musicians in face to face meeting by proper maintaining social distancing in corona days. The questionnaire had different parts. The first part of the questionnaire confined to demographic information of the musicians like gender, age and status (professional, amateur and student). The second part of the questionnaire described how musicians preferred to contact (social media, webchat, phone, email, video conferencing) during corona days.The third section of the questionnaire described the technology (Phonograph, Electric Guitar, Multitrack Recording, MIDI Controller, Auto-Tune) used by musicians during corona days.The fourth section described the different Softwares (Apple Logic Pro X, Ableton Live, Avid Pro Tools, FL Studio, Cockos Reaper,) used by musicians during corona days. The fifth section described the barriers (language barrier, funding problems, software training isssue, Internet copyright and royalty issues, low turnout) faced by musicians during chorona days.The data gathered in quantitative research was analyzed for significance through chi square test.

Results

The survey was performed to analyse the role of technology for the musicians during the corona days.The research was planned on the population having size of 150. Each variable (professional, amateur and student) had equal (N=50) representation in the population. It has been observed that professional preferred to contact 90% through social media, 90% through Webchat, 30% through phone, 24% through email and 20% through Video conferencing. The amateur preferred to contact88% through social media , 50% through Webchat, 86% through phone, 66% through email and 50% through Video conferencing. Similarly, student 48% through social media , 80% through Webchat, 20% through phone, 90% through email and 78% through video conferencing preferred to contact in corona days (table 1).The use of technology by the musicians during corona days was further sorted out. It was observed that 90%, 50% and 10% of professional, amateur and studentused Phonograph, 90%, 88% and 96% of professional, amateur and student used Electric Guitar, 92% 86% and 94% of professional, amateur and student used Multitrack Recording, 94% , 30% and 60% of professional, amateur and student used MIDI Controller, 64% , 24% and 92% of professional, amateur and student used Auto-Tune technology respectively (table 2). It was studied that 96% of professional, 68% of amateur and 40% of students used Ableton Live software, 78% of professional, 66% of amateur and 40% of students used Apple Logic Pro X software, 82% of professional, 60% of amateur and 30% of students used Avid Pro Tools software, 88% of professional, 42% of amateur and 36% of students used Cockos Reaper software, 90% of professional, 72% of amateur and 20% of students used FL Studio software respectively (table 3). Barriers faced by musicians during the chorona days was further studied. It was observed that 32% of professional, 96% of amateur and 88% of students described language barrier, 40% of professional, 72% of amateur and 96% of

students described funding problems, 12% of professional, 50% of amateur and 42% of students described software training issues, 92% of Professional, 40% of Amateur and 50% of students described Internet copyright and royalty issues, 78% of professional, 72% of amateur and 76% of students described Low turnout respectively (table 4).The chi square values in table 5 elaborated significant differences among the professional, amateur and students for webchat, phone, email, video conferencing, phonograph, MIDI controller and auto-tune, Apple Logic Pro X, Ableton Live, Cockos Reaper, Avid Pro Tools, FL Studio, language barrier, funding problems, software training isssues, internet copyright and royalty issues. Non significant differences for social media in contacting, electric guitar and multitrack recording in usage of technology was observed at $P \leq 0.05$.

Discussions

Technology penetration in education was begun in the last century. (Westera, 2015). Different studies were performed to describe the link between past and future by exploring the technology (Adam, 2019). Mobile devices equipped with latest technology has changed he life patterns of the peoples(Zickuhr & Raine, 2014; Smith & Anderson, 2016). It is the technology which provides the facilities for teaching in an unavoidable situations (Tull, Dabner & Ayebi-Arthur, 2017). These uncertain circumstances urge the addition of technology in academic policies of all kind of educations(Meintjes, 2018; Tekane, Louw & Potgieter, 2018).

Metlzer (2001) described a very much planned investigation of entering music first year recruits in five. The study proposed that most of first year students involves in word handling programming (97%), email and spreadsheet (20%-46%). Utilization of technology for music programming was for the most part lower with approximately of 33%. Rogers (1995) elaborated that people were reluctant to adopt new technology. Our study showed that professional, amateur and students peferred technology based contacting method during the corona days. Born in technological era does not mean to be skillful in technology (Bennett et al., 2008). Taylor and Deal (2000) reported that music educators appeared to utilize technology more for regulatory assignments instead of music educational programs. This pattern was also supported in later occasions (Jassmann, 2004; Ohlenbusch, 2001). Ertmer (2005) and Wozney et al. (2006) elaborated that technology has changed perception and practices of the individuals. Sandler (2008) also elaborated the importance of digital music in the modern world. Kurzweil (1999) gave the concept of technology driven evaluations of the music instead of a human oriented one. Technology won't be an end in itself any more but instead a way to assist people with coping with the expanding diffculties of any field. Our study showed that all the musicians peferred electric guitar and multitrack recording technology for working during corona days. The Association of Computing Machinery (ACM) issued (Coulter, 1998) a classification framework consisting of methodologies and strategies, modeling, signal investigation, amalgamation, and handling

systems for the evalaution of sound and music computing. A more point by point description was elaborated by Camurri et al., (1995). This classification is used as a reference in the PC oriented music compositions. Aykaç (2005) elaborated the importance of the internet in minimizing intercultural issues. This is only due to advancement of technology and latest software availability. Our study showed that professional, amateur and student used different softwares according to their needs. Ryder (2004) described an investigation of internet based showing techniques for guidance in musical structures, capacity and wellbeing of the students. He announced factually noteworthy impact on the mentality of the students in pre and post test scores. Higgins (1992) summed up well the exemplary issues with research on music technology. He elaborated the matters of poor structure for the musicians in the changing technology. A change of technology itself depends upon customary guidance (Mills and Murray, 2000; Hopkins 2002). More complex structures have been followed in the recent years that is welcomed by the young musician(Reese, 2001; Stauffer, 2001; McCord, 2002; Pitts and Kwami, 2002; Walls, 2002; Seddon and O'Neill, 2003; Bauer, McAllister and Reese, 2003; Addessi and Pachet, 2005). In the study, significant differences among the musicians for different technological variables showed the variation of interest in different softwares.

Mills and Murray (2000) reported the use of music technology mixing in the school education at United Kingdom. In view of an investigation of real music educations in 52 centers in England, information was given about the general rating of exercises and specific insights regarding the use of technology by the music educators. They found that technology has proved differentiated impact on the students skills and confidence. A review published by Price and Pan (2002) on the impact of school music education programs in the United States, they demonstrated that informations on music technology were essential for enhancing the skills of the students.

Conclusion

It is concluded that musicians prefer social media in contacting, electric Guitar and multitrack recording in techology used during corona days. Low turnout was the barrier faced by all musicians in the corona days. All the music softwares are used by musicians according to their need.

Declaration

Availability of data and materials

All the data relevant to the research are available in the paper.

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Table 1. Statistics of way of contacting by the musicians during corona days.

F = frequency, P = percentage

Variables	Total	Social media				Webchat				phone				Email				Video conferencing			
		User		Nonuser		User		Nonuser		User		Nonuser		User		Nonuse		User		Nonuse	
		F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P
professional	50	45	90	5	10	45	90	5	10	15	30	35	70	12	24	38	76	10	20	40	80
amateur	50	44	88	6	12	25	50	25	50	43	86	7	14	33	66	17	34	25	50	25	50
Student	50	48	96	2	4	40	80	10	20	10	20	40	80	45	90	5	10	39	78	11	22

Table 2. Technology used by musicians during corona days.

F = frequency, P = percentage

Table 3. Softwares used by musicians during corona days.

F = frequency, P = percentage

Variables	**Total**	**Phonograph**				**Electric Guitar**				**Multitrack Recording**				**MIDI Controller**				**Auto-Tune**			
		User		**Nonuser**		**User**		**Nonuser**		**User**		**Nonuser**		**User**		**Nonuse**		**User**		**Nonuse**	
		F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P
professional	50	45	90	5	10	45	90	5	10	46	92	4	8	47	94	3	6	32	64	18	34
amateur	50	25	50	25	50	44	88	6	12	43	86	7	14	15	30	35	70	12	24	38	76
Student	50	5	10	45	90	48	96	2	4	47	94	3	6	30	60	20	40	46	92	4	8

Table 4.Barriers faced by musicians during chorona days.

Variables	**Professional**				**Amateur**				**Student**			
	Y		**N**		**Y**		**N**		**Y**		**N**	
	F	P	F	P	F	P	F	P	F	P	F	P
Language barrier	16	32	34	68	48	96	2	4	44	88	6	12
Funding problems	20	40	30	60	36	72	14	28	48	96	2	4
Software training isssue	6	12	44	88	25	50	25	50	21	42	29	58
Internet copyright and royalty issues	46	92	4	8	20	40	30	60	25	50	25	50
Low turnout	39	78	11	22	36	72	14	28	38	76	12	24

Variables	Total	Ableton Live				Apple Logic Pro X				Avid Pro Tools				Cockos Reaper				FL Studio			
		User		Nonuser		User		Nonuser		User		Nonuser		User		Nonuser		User		Nonuser	
		F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P
professional	50	48	96	2	4	39	78	11	22	41	82	9	18	44	88	6	12	45	90	5	10
amateur	50	34	68	16	32	33	66	17	34	30	60	20	40	21	42	29	58	36	72	14	28
Student	50	20	40	30	60	20	40	30	60	15	30	35	70	18	36	32	64	10	20	40	80

F = frequency, P = percentage

Table.5. Chi square values of technology variables for musicians.

Variables	Chi-square value	P-value
Social media	01.0058	0.00301^{NS}
Webchat	78.3657	0.007602*
Phone	56.2357	0.00657*
Email	23.1467	0.05684*
Video conferencing	91.0125	0.26574*
Phonograph	23.5687	0.00001*
Electric guitar	00.0357	0.0507^{NS}
Multitrack recording	05.0235	0.0056^{NS}
Midi controller	61.2357	0.6874*
Auto-tune	56.3657	0.05001*
Ableton live	38.2357	0.05063*

Apple logic pro x	44.0056	0.16587*
Avid pro tools	11.5689	0.86597*
Cockos reaper	46.2379	0.00605*
Fl studio	40.0235	0.35480*
Language barrier	41.0946	0.36324*
Funding problems	23.0236	0.32380*
Software training isssue	43.2646	0.35080*
Internet copyright and royalty issues	26.0748	0.32580*
Low turnout	0.00546	0.00502 NS

* Significant at $P \leq 0.05$