Impact of Artificial Intelligence on Smart Media Stations (Smart Radio)

Dr. Hassan Mustafa
Dean of Mass Communication College
Al Falah University, UAE

ABSTRACT

The future of media in general right now is rapidly changes from the old theories of communication into new ones which dissolve the differences between the platforms of media. This paper exposes the development of Artificial Intelligence and its influences in the communication technology industry generally. This paper presents a technical innovative platform which reflects media integration in one screen instead of multi platforms screens. The paper handles Implementation of A I and how may help audience to interact with smart media stations, addressing the challenges and concerns about new jobs than the new features and characteristics of the future and the experience of smart radio as concluding business model. This study has the coming outputs: The radio will not be blindly listening device any more. Radio audience will be formed of all segments of society even those who lost the blessing of hearing. The A I will play massive role in taking participation decision. The audience is not only receiver anymore; they are senders and producers as well. All audience Social Accounts will be implemented together when start using smart radio. A I will replace the Gatekeeper.

Keywords: Artificial Intelligence, Social Networks, Smart Media, Audience, Platforms, Smart Radio

Introduction

The radio was a "**voice**" arrives without obstacles or barriers or physical means and is a mean of mass communication described as a mean of warm communication The listener receives media messages through the radio, received by the ear as voices, and is affected by the performance of voice and the unique spontaneous. We can hear the radio anywhere, there is no need to be educated, and the illiterate who does not read or write is always the prefer it as a communication mean. Here research focus on Radio as media station may be difficult to some people imagines the tremendous changes on this radio industry. Thus if we prove that on radio then it reflects to all other media stations.

However, The implementation of artificial intelligence has become mainstream in the development of social media due to its advantages of automatic data processing, content generating and efficient interaction with customers, the A I has becomes the main factor especially when we know the resent statistics, according to Statista (2017), the number of smartphone users in the world is around 2.3 billion, and this number has been increased to 5 billion in 2018 according to the global digital report 2018 (digital report, 2018). Another global survey stated that half of the world's population (around 4.6 billion out of 7 billion people) is using smartphones (Statista, 2019). The use of smartphones has become a ubiquitous and constant part of people's lives. Furthermore, a statistical survey (Hoot suite, 2019) showed that the total number of people using social media on their phones has increased over the years.

This huge number of users forces traditional form of radio to be transformed into smart one to answer questions: would we be able to hear through eyes instead of ears?? Will we listen to the news bulletin with the possibility of reading the text or sign language?? Can the commercials on the radio be interactive?? Is it possible A I decides playing our, interact with our favourite radio show? Could A I be the new shape of Gate Keeper?.

That will also impact on the audiences' role and should be ready for that era of A I.

Aims and Objectives

This paper aims to shed light on A I revolution in the field of smart media, through studying the reality and the expected development, support the pursuit of excellence, creative media industries, and

required to monitor and review the development of A I for smart media, other than the traditional one, focuses specifically on the role specific platforms and technologies have in the context of a future.

The study will discuss the ability of smart stations specially radio stations to adapt development of functionality to make it more easier for the audience and other parts such as companies through via commercials thus the communicators as well, and will address the challenges and concerns in terms of information security and then smart radio, which effectively embodies the form of information broadcasting in the future.

Future studies can help determine the current state of media institutions, increase awareness of audience and change the future. This may force us to accept the coming future.

Future studies focus on studying the current situation and how it arises and develops, because if the present has emerged from the past, the future is determined in one way or another by the current reality and emanates from it.

Importance of Study
The importance of this study is taking current trend of the media relies heavily on these new technologies that have changed and will change much more in the media platforms and therefore their reflection on the sender and receiver (partners) and this comes as follows:
1. Emphasize in the role of A I in shortening the time and availability, which makes media in continues interaction with the recipient (partner), is more attractive way.
2. Contribute information as knowledge society through the global media clubs and benefit from there views.
3. Reforming the radio shows in new technical format suitable for the current generation, this needs a certain type of speech characterized by speed and focus on the content.
4. A I considered as a key player of the content

Methodology
This section will briefly describe the methodology to be utilised in the endeavour.

Research Methodology
The research will be descriptive analysed research with the experience of the author who created a lot of these smart radio stations beside his previous in traditional radio station for more than 20 years, observation and participation are my mean way to collect data and analysis plus practical tests and applies.

The Concept of Smart Radio
Introduction
Here we will comprise of a descriptive piece to lay a foundational knowledge base of the radio and smart radio to get the concept of smart radio, the word radio is mutual with many concepts, however its being dedicated to the radio station as famous term, Collins dictionary defines the radio station as a telecommunication is installation consisting of one or more transmitters or receivers, etc., used for radio communications (Collins, 2014).

The free encyclopaedia defines smart radio as (A radio transmitter/receiver that can find the most appropriate air interface to use at any given moment. Such software-based radios would enable a mobile device to work in numerous wireless environments locally and in different countries) (free encyclopaedia, 2019).

This can lead to a lack of standard communicational terms between people, as every person will have a different view of what these technologies comprise of. This variation of understandings is often derived from each's own experiences and exposure to different situations and their range of knowledge with these technologies.

As it focuses only on the technical side, without consideration of human side, which will be considered by A I and drive on it as we will discuss later.

Smart Radio Means "Cognitive" and "Alert"
Smart radio as such software-based radios would enable a mobile device to work in numerous wireless environments locally and in different countries. See software-defined radio and spectrum (Markus & others, 2003).

Mobile devices are taking over the IT landscape, making Mobile Device Management (MDM) more important now than ever before; and at the top of MDM

priority list should be is mobile data security. (search mobile computin, 2019)

Those above definitions are correct, however in this paper I focus on Internet radio (also web radio, net radio, streaming radio, e-radio, online radio, webcasting) which define as an audio service transmitted via the Internet. Broadcasting on the Internet is usually referred to as webcasting since it is not transmitted broadly through wireless means. (en.wikipedia.org, 2019), so it integration between, message, spectrum and medium in one device.

Internet radio involves streaming media, presenting listeners with a continuousstream of audio that typically cannot be paused or replayed, much like traditional broadcast media; in this respect, it is distinct from on-demand file serving. Internet radio is also distinct from podcasting, which involves downloading rather thanstreaming.

Internet radio services offer news, sports, talk, and various genres of music—every format that is available on traditional broadcast radio stations (Fries, 2005) Many Internet radio services are associated with a corresponding traditional (terrestrial) radio station or radio network, although low start-up and ongoing costs have allowed a substantial proliferation of independent Internet-only radio station.

Thus here we aim to intermixture with broadcasting medium (Internet) and A I software which gathering information about audiences interests, then implemented in the radio shows, planning and broadcasting.

History
There are several efforts being done by many scientists regarding the wireless communication since 18th century where I wouldn't be focused on it, till the year 1920 which was witness the launch of the first radio in its current sense (encyclopaedia Britannica, 2019).Thenalotofimprovementhasbeenimplem entedstartingfrombroadcastingthrough radio waves (frequencies), via the satellite and DAB (Digital Audio Broadcasting) up to streaming over internet which our concern here.

Here I take the whole text as it is been published at Wikipedia (**Internet radio was pioneered by Carl Malamud. In 1993,**

Malamud launched "Internet Talk Radio" which was the first computer-radio talk show, each week interviewing a computer expert. The first Internet concert was broadcast on June 24, 1993 by the band Severe Tire Damage). (Wikipedia, 2019).

The first note is that the Internet Radio is being known as the beginning of Internet publicity which means it was not delayed to be active and using new channel to spread up.

In November 1994, a Rolling Stones concert was the "first major cyberspace multicast concert." Mick Jagger opened the concert by saying, "I want to say a special welcome to everyone that's, uh, climbed into the Internet tonight and, uh, has got into the M-bone. And I hope it doesn't all collapse". (Wikipedia, 2019)

Advantages and Features
Flexibility
Ability to adapt your streaming at any time as long as you broadcast from your mobile phone, you can easily change your playlist and shift from MP3 files into live with your mic. And you can broadcast from Mobile or Computer.

Live Update
You can easily modify or edit your files with few clicks. Not as old way which waste time and efforts. Beside you have ability to make any modifications while you are live on air, so you can avoid live mistakes before going on.

Easy
Every time adding new features to the APP you don't need a complicated technical knowledge, its one click far. Technologies not complicated any more like before, all people now aware using smart phone without difficulties or great experiences, even kids in early ages could deal with smart phone, so its just matter of clicks.

3.4.4 Minimal System Requirements
The requirements for listening to a streaming radio station remain virtually unchanged. You can listen to radio through a Mobile. And thus the streaming is through the Mobile phone no need more than mobile with internet connection to listen and a host web server to stream.

Effective for setting up ad-hoc networks

By using smart radio APP you can target a specific groups as I created a specific smart radio for females only, their culture, religious regulations, traditional concepts, health, and education. Etc. also other parts of community especially in a high diversity population societies

Choice and Variety

The variety of stations available for smart radios considered as greatest strength, choices extend far beyond basic genres such as classic rock and pop. If you like music from the 1980s, you can select anything from new wave to hip-hop. If you like electronic music, you can choose trance, ambient, video game soundtracks and more. A streaming radio station is available for virtually every taste, no matter how obscure. That for sure will rise up competition to provide best options, which could be easier for A I to determine through analysing the habit of audience.

Fewer Advertisements

There is no high cost for smart radio, but the costs of running a terrestrial radio station are far higher. Smart radio stations generally broadcast very few commercials compared to terrestrial radio stations, which must broadcast a steady stream of commercials in order to pay the bills. Some smart radio stations could be supported by donations or play royalty-free music and have no commercials at all, because the commercials could be in *other format like* GIF, flash, scrolling text or videos that could be running while the streaming, so no need to interrupt the audience (partners).

No permission Needed

This the most important feature, in traditional radio stations you need many permissions from different parts, such as security and communication authorities and others however here no need for that, as there is no limitations.

Availability

Smart radio is available wherever there's an Internet connection, and there are no geographical boundaries. While you must be relatively close to a terrestrial radio station in order to receive a broadcast from it, this restriction does not exist on the Internet. You can listen to an Internet radio station regardless of your location. Many terrestrial radio stations even stream their broadcasts online.

Sound Quality

Terrestrial radio is subject to interference and environmental factors. You can lose a radio signal in poor weather or driving through a tunnel, for example. Additionally, radio sound is heavily compressed to reduce the impact of high-volume passages and make quiet passages easier to hear. Smart radio is often less compressed and closer to CD quality, although lower-bandwidth Smart radio stations could be available for those having connectivity problems. The point is you can control the quality as you make the setup and references of the sound.

The concept of Artificial Intelligence

As it related strongly with computer, the technological sector underwent exponential growth and advancement, the capabilities of computers grew. Computers started getting smaller in size, consume less power and featured increasingly greater processing capabilities (Strawn & Strawn, 2015). All of these factors have allowed the development of features which would have been impossible in the previous decades. The increase in computations power allowed for the simulations of increasingly complex environments in both depth and performance. Axelberg (2016) mentioned several definitions of AI such as:

- Simulation of human intelligence processes by machines, especially computer systems.
- The science of making computers does things that require intelligence when done by humans.
- The study of how computer systems can simulate intelligent processes like learning, reasoning and understanding symbolic information in a context
- The branch of computer science that is concerned with intelligent behaviour.
- The science and engineering of making intelligent machines, especially intelligent computer programs and using computers to understand human intelligence

To have more idea about it, we can look at the below chart which explain the related topics of A I
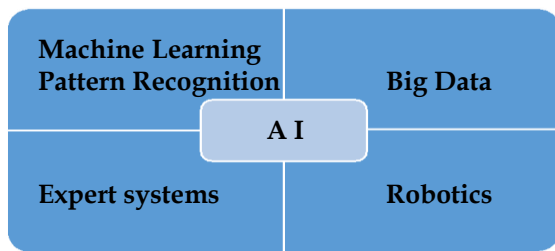
Chart (1)

The modern history of AI is traced back to the year of 1956 when John McCarthy proposed the term as a topic for a conference held at Dartmouth College Initial goals for the field of AI were too ambitious and the first few AI systems failed to deliver what was promised. New and more realistic goals were stated.

In the 1960s and 1970s the focus was primarily on the development of knowledge based systems (expert systems). In late 1980s and 1990s renewed interest within the AI field thanks to the development of the learning algorithm 'Neural Network with back propagation' in 1969. Axelberg (2016).

A I vs. Human Intelligence
To get idea to the research point we have here below a table of comparison between A I and Human Intelligence: (educba, 2019)

Comparison Factor	Human Intelligence	Artificial Intelligence
Energy efficiency	25 watts human brain	2 watts for modern machine learning machine
Universal	Humans usually learn how to manage hundreds of different skills during life.	While consuming kilowatts of energy, this machine is usually designed for a few tasks.
Multitasking	Human worker work on multiple responsibilities	The time needed to teach system on each and every response is considerably high
Decision Making	Humans have the ability to learn decision making from experienced scenarios.	Even the most advanced robots can hardly compete in mobility with 6 years old child. And these results we have after 60 years of research and development.
State	Brains are Analogue	Computers are digital

We concern manly here with the decision

making as the A I has that ability by gathering all related search information and then decide instead of the user.

Impact of A I on Social Media related to the Smart media Station
Artificial Intelligence (AI) is everywhere nowadays. Social media is one such core which is being rapidly disrupted by Artificial Intelligence development. It's just been a decade or so since social media became a part of digital new media, but it has steadily grown in prominence and now stands as a high potential difference smart radio station users. The process of optimising social media habits has received a massive boost through the application of AI. However, in addition to many features of A I it acts like a high-performance digital brain that provides direction to the take actions. (Saheli, 2017).
Social listening
All audience have already left a significant digital footprint, and there are massive amount of data about what they want and what they're talking about online, what they are listening to and what they are like to listen and watch as well. By using AI algorithms, social listening identifies key phrases, words, and songs that are highly relevant to them. This data is then collected and leveraged to create specialized content for audience, the information could be tracked.

Audience segmentation
Identifying audience segments is a key responsibility of new digital media. It is important to group potential audiences according to age, geography, online presence, content preferences, past listening habits, etc. so that it becomes easier to push the relevant radio show to the right audiences, in the past, this used to be a very difficult process given the huge amount of data being churned out on an everyday basis, while it is so easy mean while due to the A I development. In order to crunch such huge amounts of data, artificial intelligence has been trained and primed to go through the numbers, clicks, and preferences to throw up measures that a smart radio stations can act upon.

Unique audience's experience
The end goal of all the data collection and audience segmentation is to provide the audience with unique user experience, so they feel like the content is tailor-made for them,

which is a sure shot way to get them interested in smart radio show. This is a field where human creativity rules the roost and will probably be calling the shots for a long time; however, AI tools can be calibrated to aid the process of providing optimal audience experience, that's short time and break the boring attitude or mood of audience. Pushing the right content to the right audiences is not an easy task, because people are getting tired of spam and unnecessary ads, so even if you have great content, pushing it to the audience in a way that doesn't seem intrusive is a major challenge, that's why here we need smart A I to help pinpoint the right audience for needed content.

Artificial Intelligence development and it will be interesting to see how digital marketers can incorporate the latest technologies into what they do and what this means for marketing. Why Artificial Intelligence Is Important to Marketers

Intelligent Communication
Based on intelligent communication, machines can learn from interactive experiences with people and become smarter, but as critics point out, machines could never possess independent consciousness; even the accumulative learning mechanism is predetermined by the engineer (Frankish, 2010).

Intelligent Simulation
Intelligent simulation is perceived as the future of strong artificial intelligence since it requires robots to own logic, information induction, critical thought and psychological processes that simulate the human brain (Bahrammirzaee, 2010). There are two ways for A I to be applied in the media business in general; as intelligent distribution in music and media production with the assistance of A I (Wenger, 2014). For example, streaming content has become mainstream in the music player industry. Here is the same concept we can talk about radio show.

Based on intelligent push technology, streaming music can learn specific user's preference in music style and introduce relevant albums for users to make a choice. Intelligent push technology can also be used in media production. Audience viewing history will become the basis for a website to push relevant content, related commercials as well.

Future
Based on the development trends of the past and present that have occurred in this area, it can be reasonably assessed what future advances might occur. While these projections are based on real-world data, they cannot take into account the nature of spontaneous events or unforeseen technical advances. Such factors can render predictions inaccurate to a varying degree based on the magnitude of the developments and the effects they have on the field as a whole. Therefore developments can be projected to mostly include advances on current technical capabilities, barring any huge leaps of discoveries (Smith, 2013). The evolution of the radio itself detection limits cannot exceed the time as a problem, and the problem of the limits of the means and the inability to adapt to some of the habits of the public and the media.

Accordingly, the ability of the press to the repetition and giving more opportunities to explain, analysis, interpretation, and the ability of radio to reach an audience in special positions (while driving in the work periods) makes this mediums, integrated media to meet the informational needs of the human being, which is one of the researchers described as "the same media news feed and grow in thought, and beautiful melodic valid". These needs cannot be satisfied by relying on one method.

Who predicted made a mistake, that the television will cancel all previous means to him, including the radio, because the later years revealed the continuation of the means but its superiority in providing some of the media arts, particularly local news and forms of entertainment and recreation, this is due to the specificity of this medium and possesses the attributes enabled it to pass the twentieth century. We can sum up this in the following points:

- The ability to conquer the dimensions of time, space and access to the public at any moment and in any place of the world.
- Easy access and mobility, you don't need special way of sitting or lighting.
- Radio production is still costless compare to TV production.

Therefore, the researcher believes that future

will go in the same direction, to the reformatting of communication functions, but the smart radio would be the most prominent means, thus smartphones become the container which., contains, produces, operates and interacts with the known communication elements.

Who can imagine that the Snap chat of 10 seconds will defeat the TV? Now we have a new type of famous people called (Social Media Stars) who gain a lot of money in terms of using these new communication methods, that's force us think about future.

Conclusion

- In general we can conclude that A I and smart radio or any another smart media station which could be any of TV or Radio or even publication are strongly related and will help producer and audience together to have the right content.

- Media stations will never be before, like books, magazines, music and just about every other mass medium you can think of, the age-old format is being transformed by the Internet, mobile technology and a few very smart organizations.

- These changes will lead to cancelling media stations owned by governments, turning individuals into their own media conglomerates, as it is in the blogs, and also the form of the current radio demise.

- The mobile became a media station, produce, stream and receive at the sometime.

- The A I will be the main core of audience habits, decide instead of them which content should be deliver totem.

- A I could play the gate keeper role.

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