

**Short Communication****Medical and Health 2.0: Important and possible Interdisciplinary Domain of Information Science-Overview with possibilities, Challenges and Issues**Prantosh Kumar Paul<sup>1</sup>, Jhuma Ganguly<sup>2</sup><sup>1</sup> FBAS, Bengal Engineering & Science University, AK Seal Hall Shibpur, Howrah-711103 West Bengal, India,<sup>2</sup> Department of Chemistry, Bengal Engineering & Science University, Howrah, West Bengal, India**\*Corresponding author**

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**Abstract:** Web 2.0 is the important name in the field of web technology and modern world of Informatics. The term web 2.0; was first used during 1999, though the effect of web 2.0 still; emerging. The main aim and function of web 2.0 is sharing, information, content, files and big data including audio and video files among the people through the dedicated network. Use of social networking sites and blogs, wikis for message, content and video sharing for medical and health purposes treated as Medical 2.0. The bigger platform of Medical 2.0 may also known as Health 2.0. this paper is talks about web 2.0 and its application in Medical and Allied Science; paper discusses the contemporary role and potentiality of Medical 2.0 briefly. Paper concludes regarding challenges and issues of Health and Medical 2.0 in Indian scenario.

**Keywords:** Medical 2.0, Medical Science, Information Science, Information Technology, India, Challenges and issues, Health 2.0, Web 2.0, social networking, Health Informatics, MIS

**INTRODUCTION**

Health 2.0 is does not mean only professional communication in between medical professional. Today it is also considered as Communication between Medical Practitioner to Medical Practitioner, Practitioner to Druggist, or Druggist to Druggist, Pharmacist to common mass communication. Health and Medical 2.0 is a modern mechanism powered by Web Technologies which is responsible for interaction among the dedicated and prefixed community [1]. However, people can also join later to group by individuals to any of its existing member. Earlier Health and Medical 2.0 was considered mainly as concept but today it is treated as full fledged domain and knowledge cluster in the field of Information Technology, Information Science, Computer Science, and Information Systems and so on[5]. The way of collaboration in between professionals, friends and communities with the help of self directed website called Web 2.0 and if the purpose, content or Professionals are from Medical or Health field then the domain may be fall under Medical 2.0 or Health 2.0 [2-3].

**Objectives**

The main aim of this conceptual study is includes, but not limited to:-

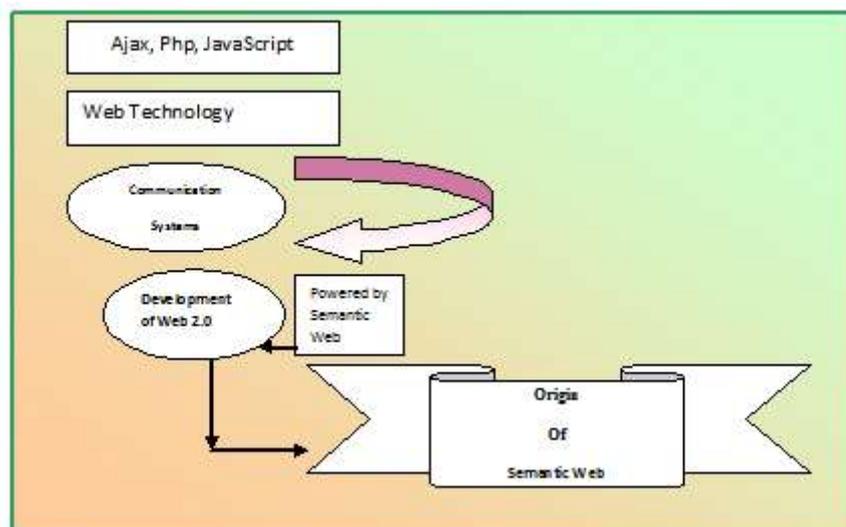
- To take overview of web 2.0 and its uses;
- To learn about Web 2.0 technologies, tools and techniques for building Web 2.0 sites;
- To learn about the contemporary strategy required for web 2.0;
- To learn about Health and Medical 2.0; including its characteristics and features;

- To find out issues, challenges in the field of Medical 2.0 in Indian Scenario;
- To learn about role and utilization of Medical 2.0 in contemporary context;
- To find out contemporary tools and techniques behind Medical 2.0.

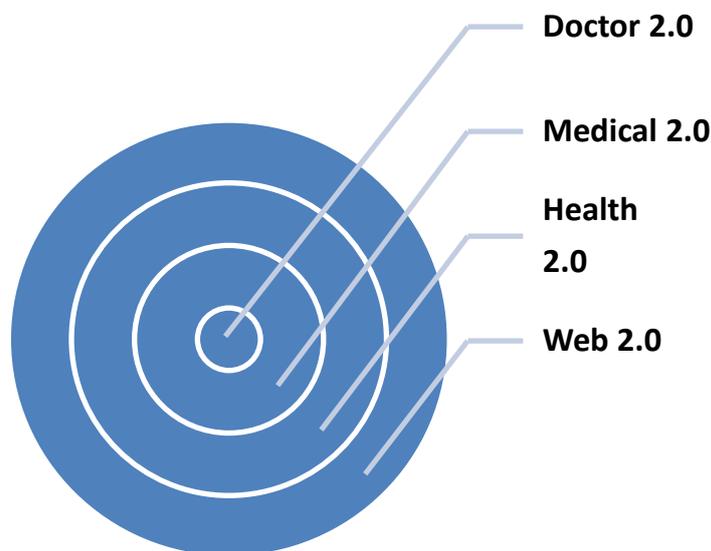
**Medical and Health 2.0 and Background**

As per Wikipedia, Health 2.0 is the use of specific set of web tools [blogs, podcasts, tagging, search, wikis etc] by actors in health care including doctors, patients and scientist using principles of open source and generation content by user and the power of networks in order to personalized health care, collaborative and promote health education. Medical 2.0 is responsible for advancement and promotion of medical tourism and health and diseases awareness among the dedicated mass with the help of internet and mainly through social networking sites, blogs, wikis and similar platforms [4].

Medical 2.0 and Health 2.0 both are practically depends on Web 2.0. Virtually, Web 2.0 is responsible for creation of virtual reality; to some extend. Practically Web 2.0 is the wonderful tools which can make an individual as web developer or content develop; as any person or member can join the web 2.0[4]. Health 2.0 is also treated as Medical 2.0 or Medicine 2.0 or Med 2.0. Health 2.0 is also promotes health systems which including hospital and health administration, clinical research, medical tourism and so on. Virtually Health 2.0 is responsible for overall Health Infrastructure development and which is ultimately needed for overall Public Health development.



**Fig: 1:- Development of Web 2.0 and Web 3.0**



**Fig: 2:- The Web 2.0 Dimension in Health & Medical- From smaller to larger at a glance**

**Medical and Health 2.0 and Utilization**

The increasing role of IT in Health Science also responsible for a new facet or concept Med 2.0 which is mainly deals with internal and complex topic of medicine among the practitioner, medical researcher rather than of common mass on health related topic[1-3].

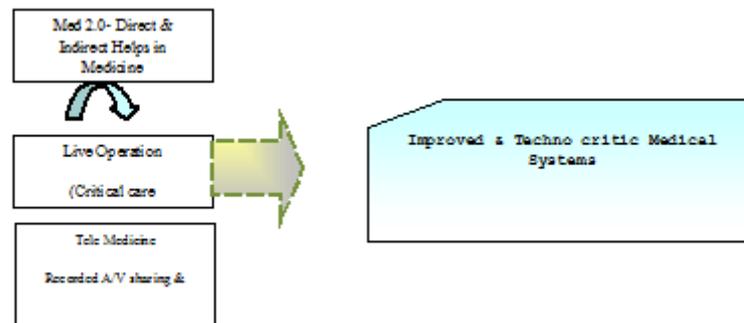
Virtually, Health and Medical 2.0 is dedicated for the constitutes of so many Professional under one roof, including patient, physicians and other players. Virtually, Health 2.0 and Medical 2.0 is responsible for following happening:-

- Communication and sharing of information among the health professionals and practitioner with their peers;

- Communication and sharing of information, views, expression among the health professionals with common man or patient;
- Keep collaboration among the stakeholder in the world of medicine;
- Clarification of any concept, theory or any medical related matter among the practitioner. This is helpful for continuing education;
- Introducing Web based medical services for health care consumer caregivers, patients and bio medical researcher;
- Providing and delivery of online Video, A/V material and operation videos among the medical professionals;
- It helps in Medical Tourism and similar platform;

- Normal Telemedicine is run by the VSAT and individual no need to acquire such facilities; but as Health 2.0; is run under Medical 2.0, thus it helps in Telemedicine with cost Effective procedure;
- Through Medical 2.0 any Patient can communicate to the Physician from any remote place;

- The first aid or primary medical application is also possible by Health 2.0;
- Regarding further consultancy and appointment with the doctor; this is may utilized;
- Joint Medical Treatment, formation of Medical Board is possible with Health and Medical 2.0 benefits;
- It keeps Medical Research healthy and update



**Fig: 3:- The beneficiaries of Medical 2.0 at a glance**

**Technologies and Health /Medical 2.0**

The main technologies behind Health and Medical 2.0 is Web 2.0; which is the extension of Web 1.0 and thus it deals with Web Languages and Web Technology; Web Technology run by Social Networking and user centered Website creation are important benefits of Web 2.0. Here users are also able to provide data that is on a Web 2.0 and exercise some control over that data[1-4].

Web Technology actively main fundamental and technology behind Web 2.0, there are so many techniques which supports web 2.0; the client side technologies such as asynchronous, JavaScript, XML, JavaScript, Ajax framework are valuable for web 2.0 building. Apart from these, Adobe Flex Is also applied for large data grids, charts and other heavy user interaction.

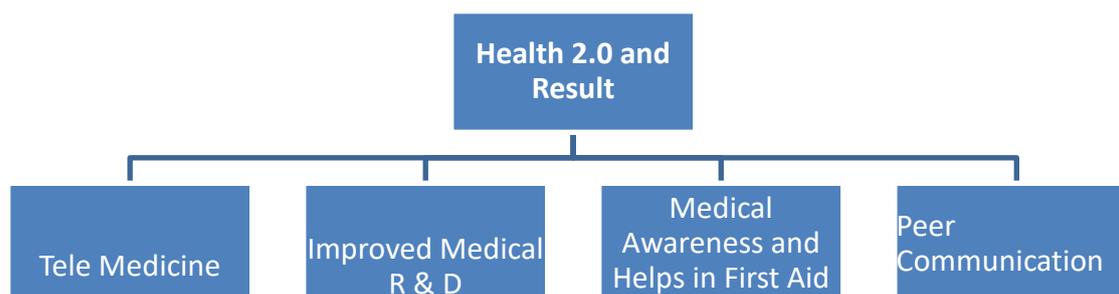
For building Health 2.0 and Medical 2.0 we also need some scripting language among so many scripting language VB Script, Ajax are important to build healthy and sophisticated Health 2.0 web sites. To run advance web 2.0, designer and developer also need to depend on any Web 2.0 browser and that may be Firefox, Chrome, Internet exp[loser, Netscape Navigator and so on.

**Challenges and Issue**

Implementing, running and uses of Medical and Health 2.0 needs several challenges and issues to be face which includes

- Uses of technologies are critical one, because most of the technologies are costly. Implementing Cloud Computing for more virtualization needs several infrastructure;

- Managing particular diseases is very tough to identify from remote place; thus telemedicine may create further problems some times;
- India is a developing country; we are facing so many challenges. Problem regarding adequate infrastructure may really challenging;
- Awareness about the Medical; 2.0 and Health 2.0 is very much limited till now. Doctor and Health Professionals still not aware and accustom with computing thus problem is there in its actual uses;
- Building sophisticated Health Informatics needs sophisticated technologies; but still technologies and its realization is tough enough for the issues like open source software, technologies are important issue;
- Availability of Human Resource to design and development of health and Medical 2.0is very much tough in a country like India;
- Indian Medical [MBBS] curriculum not at all talks about Health and Medical 2.0; thus it is reflects in pass outs with medicine degree;
- Integrating IT and Medical Informatics is essential but tough to fully implement in a country like India; only centralize decision may solve the problem.
- Still Government and statutory bodies not holding any Health Mission with ICT for Health properly;
- People still not aware about the benefits of Medical Informatics and Medical 2.0; so creation of awareness is an important challenges;
- Unwillingness to change to use Medical 2.0 among the skilled professionals are really challenging.



**Fig: 4: Wider Benefit of Health 2.0 in Present scenario**

### CONCLUSION

Health is one of the important aspects for every one. Like other domain Health and Medicine as a field is also growing. The demand and value of Medical 2.0 in Western countries is very high. Countries like India and other developed countries may complete very much with Medical 2.0 as India is suffering with Physician Shortage and remote place problem. Ultimately, it may aware about on any particular topic, diseases, further treatment and so on.

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