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Dentistry in digital world: A conspectus

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DOI: https://doi.org/10.22271/oral.2020.v6.i4c.1061

Abstract
Social media is always interconnected with human life where dentistry is no longer exceptional. Social media has evolved along with the advancements in the scientific technology of dentistry. Dentists have learnt to utilize social media in many sectors for effective and quick outcomes. Social media entry into dentistry has brought in a major revolution where student's roles are switched from 'sage on stage' to own acquisition of information and application of theory to real. Dental educators adjust pedagogical methodology with new generation of students. Patients are now well aware and well informed about medical issues and they can select their own doctors and clinics and this is made possible through easy access of social media. Dental professionals and dental marketers are highly benefited by social media as it is used as the main advertising or marketing tool. Marketing strategies such as attractive websites, advertisements, applications, reviews and ratings are influencing the consumers and patients to a great extent. But there is the dark side which should not be ignored. Managing Personal and professional life in the social media is not easy to many, hence can affect their reputation. Anything on social media can be misused, abused, tampered easily hence sensitive data, comments, reviews has to be properly handled. Doctor-patient relationship is mainly built on trust and goodwill hence the parameters of professionalism should not be breached at any cost. This paper appraises about the blooming side and the dull side of the social media's impact on dentistry.

Keywords: Social media, internet, online, doctor-patient relationship, marketing

Introduction

Entry of social media has influenced dentistry to a huge extent. It benefits all categories – students, peers, professors, institutions, clinics and dental products manufacturing companies [1]. A dental student can improvise in his or her individual learning style by accessing information from various sources which are available as DVDS or pdfs containing hundreds of textbooks and various websites with video tutorials. Even if collaborative learning is preferred, team-based projects, the peer groups can connect with each other with the help of social network [2]. Dental educators should be much familiar with social media and must be accustomed to the applications and ideologies to bring out its best benefits [3]. It helps in personal and professional development and lifelong learning [4]. It is also useful in promoting new dental techniques. Social media plays major role in providing high standards of patient care, guidance to new trainers and foundation for future practice. But breaching the parameters of professionalism within social media will cause damage to too many relationships such as student-professor, patient- doctor and so it goes on. Guidelines should be carefully followed for proper use as it depicts much about the conduct of the professionals [5]. We got to maximize the benefits and minimize the risks [3]. This paper aims in describing how internet contributes to the profession of dentistry in every aspects and also exposes the darks side of the internet and concludes that if the internet is used with right guidelines it will aid us in a different dimension.

Web 1.0 and 2.0

World wide web was invented in 1989. Initial launch of internet was Web 1.0 [2]. Web 1.0 had very less 'content creators' but web 2.0 was established by the collaborative work of a group of content creators [2].

As the information is now being exchanged by a wide group of people, it is not only about gaining knowledge it is also about taking part in the spread of information by analyzing, sorting, discussing, criticizing and creating information through tags, comments, texts, ratings or posts of videos [2]. Web 2.0 is simply a user-generated advancement and it keeps advancing and improving along with the fast-growing scientific knowledge in dentistry, hence the dental professionals should be well-versed in social media to be updated about the recent advances and trends. Groups for social and learning purposes supports their transition into the culture of dental profession [2].

The use of social media and mobile devices has changed the behavior. The world is no longer in the information age, it is in attention age. Social media has been classified into five groups: 1) collaborative projects such as Wikipedia, 2) blogs and microblogs such as Twitter, 3) content communities such as You Tube, 4) social networking sites such as Facebook and 5) virtual gaming or social worlds such as Second Life [6].
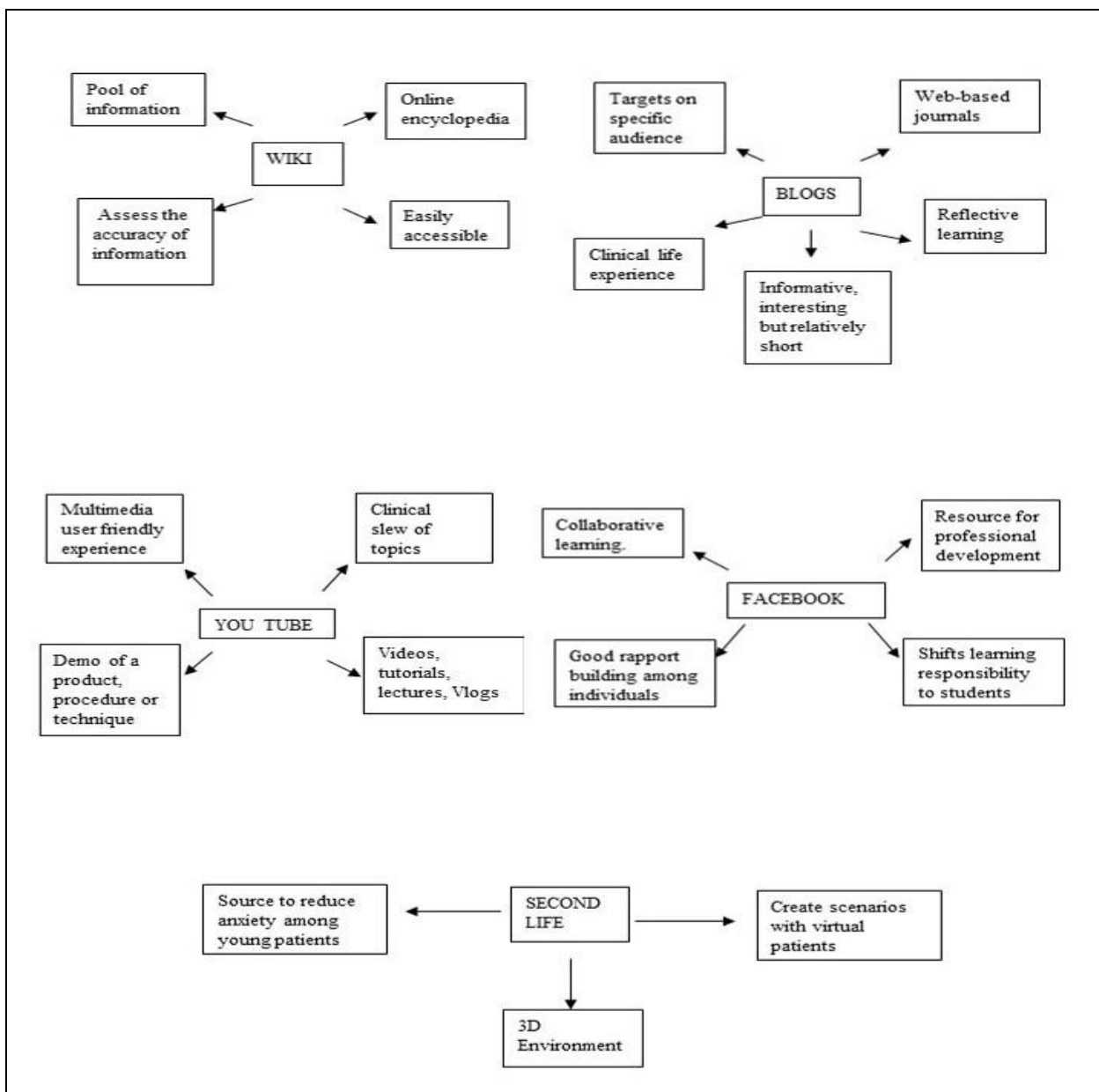

Fig 1: Classification of Social Media

Benefits
Social media benefits both dental professionals and patients in various ways. For personal and professional purposes, social media is widely used by faculty members and students [7]. It is used to gain information, attract patients, marketing, research activities and share their experiences. It helps the patient to get basic knowledge before dental appointments.

Dental education
Many social media applications have their own usefulness [6]. We can make use of them by various means like smartphones, iPhone or tablets [8]. Many surveys have been taken worldwide which clearly confirms that students prefer online media to be their primary resource of information. Using social media in education, like taking classes through video conferences, allowing students to tweet about the lectures, enhances student's participation and their ability of sharing their ideas. Usage of internet for education has slowly shifted the learning experience from being spoon-fed to voluntarily gaining knowledge from resources available [7]. Best practices, teaching strategies, ideal treatment procedures can be shared for collaborative development. Online classes help in multi-

tasking as there is no need to be physically attending the college and saves time which helps students to enroll in many courses simultaneously. Skype can be used to conduct meetings, conferences, discussions as it allows multiple users on the same call [3]. Shy and nervous students who want to answer or wish to ask their questions feel free to ask through the comment section [3]. Class blogs or Gmail can be used to post their assignments. Faculty members holding online office-hour, can help the students to get in touch with them, so if there are any queries, concerns or requests, it can be easily addressed. A group page can be created for a class where any pictures or radiographs can be posted and discussed. Google alerts are available to help professionals keep up their pace with the fast-growing advancements in all avenues [6]. Clinicians who have finished their education and are involved in full time clinical practice can be updated about the new advancements and drugs through internet and they are able to play a role in academics by publishing papers and sharing their experiences by conducting webinars and conferences.

Patients are not layman anymore
Medical terms and the knowledge about the human body and health were mostly confined to the health professionals. But internet-access opened a wide door allowing anyone to know about anything in detail. Due to easy accessibility to internet, patients are now aware about the common dental issues and the normal symptoms and simple household therapies or the possible treatment strategies, so they get answers to most of their queries. With the help of consumer ratings, they get to decide their own doctors, clinics or products based on which is most trustworthy and which can be more beneficial to their need. So when they step into a clinic they are not a layman anymore but are well-resourced and well-informed [6].

Social media, a tool in marketing
One-way to two-way street
Once internet was used by the marketers to advertise their products and the consumers can only view what they wanted them to view so internet worked more like a digital brochure [1]. But now there is a change where the internet has become a two-way street where the consumers can respond by their comments, ratings and reviews and it is a collaboration of users where people sit together and discuss which product is good and which treatment sounds successful [1]. Websites like PRACTO shows profiles of the clinicians and the reviews by the patients. There are online sites where patients share their experiences of illness which helps others with similar disease [1]. Online dental store's like DENTAL CART show's ratings and reviews of products which helps the dentists buy their desired products.

Outbound to inbound marketing
Internet is evolving and the marketers are making better use of it. There are two types of marketing – outbound and inbound. In outbound marketing there is presence of advertisements everywhere, be it on the radio or newspaper or a TV show or a movie or music, the advertisements keeps on interrupting, so people now have learnt to avoid the advertisements by shifting to commercial-free satellite radio or skip over commercials using digital video recorders and go online for watching news and entertainment [1]. Advertisements have become something that a vendor wants to sell. Inbound marketing intends to reach the buyers with appropriate information about the products and stuffs when

they need it. It is just like providing information that is easy to find when it is actually needed [1]. The best effort for a dental clinician to put in social media is to make sure the current website is up-to-date and social media friendly. It would be good to have links in the social media sites as it will help viewers and patients to go there and read reviews or create any. It should be made sure that all social media sites are linked to the main website where the patients can get the information they need to contact the dentist's office.

Search engine optimization
'Search engine optimization' is a platform where patient can find the most familiar practitioners or products by finding the most viewed pages. This serves the consumer's expectations to a greater extent [6]. It actually works by enhancing website's online visibility by increasing incoming traffic and the website's ranking in the search engines. It is important to increase the website ranking in Google as patients mostly prefer dentist or clinics or products from page one.
Attracting the patients:
The main use of social media in marketing in dentistry is to bring new patients to the practices. It actually happens in two ways. Firstly, by drawing new patients directly through social media or through referrals by family members or friends and there is a high chance for the patient to go online and check for the recommendations or any complaints, before stepping in [9]. Secondly, gaining the goodwill and loyalty of the current patients helps in attracting many new patients. It will be useful if current patients are 'on-board' with new updates or informational posts [9].

Internet's role in clinical setup
Dental profession is a place where media helps in knowing new cases and gaining ideas and knowledge from fellow doctors which can be used and practiced in clinical set-up. Social media sites like virtual study club, continuing education (CE) videos on YouTube and blogging gives access to various specialists to express their ideas regarding clinical procedures and they can be implemented by their colleagues [6]. Application soft wares are necessary in every clinical setup which consists of dental records, dental billing and appointments scheduling. Consultation referral process also helps dentists in a great way where internet plays the main role of sending the data to the server.

Risks
People find it hard to separate their personal life from professional life on social media and thus affecting their identities and reputation which complicates the use of social media by health care providers. So they may feel that it is better to abstain from social media use. But it is a waste such a good technology; so the better option would be sticking to the principles and guidelines which would help professionals to safely negotiate their personal and professional roles [6].
Health care professionals and patients share a unique relationship where the professionals are concerned about the well-being of the patient and the patients trust their health professionals. It's a fiduciary-type of relationship built on trust and beneficence [6]. There are certain boundaries which should not be violated at any situation. Social media leaves so much way for overstepping the boundaries, as it exposes their personal life which they don't directly wish to disclose. Proper compartmentalization would help them mostly to prevent boundary violation [7].

There are federal and state laws made especially for the use of social media. It would be considered as violating the law to post or disclose or discuss any health information of the patient via social media. So the professionals who share their clinical experiences or lecture class experience should be very careful not to offend or breach the confidentiality [10]. Thresholds in social media has to be properly acknowledged as overstepping it may cause offense to some or harm some or may even end up in creating negative consequences to many. Guidelines that are designated especially for the dental students, faculty and staff should be clearly mentioned in dental school publications, handbooks so that everyone would be aware about it. It is necessary to protect both the individual and the reputation of the institution [6].

Though many feel that social media helps in building-up relationships, it tends to ruin many relationships too. People comment or post stuffs so casually on social media which they would never say in face to face conversations [5]. The filters that are normally used when one socializes with people, that depicts good mannerisms and character seems to be missing when people communicate in social media. Communication in social media is mostly done abruptly without giving any advanced or deep thought which later leaves the individual with regret and embarrassment. This issue occurs mostly between students and professors or students and faculty members where the students taking advantage of 'free to speech' makes them sound disrespectful and thus will ruin proper rapport with their seniors [10].

Each country has its own guidelines, some stating that testimonials should not be used for advertising purposes as of a procedure or a clinic while some countries widely use testimonials such as USA and UK. Photographs of patients are mostly not encouraged as same treatment result might not be possible in every situation, so ideal successful treatment result photographs might raise unrealistic expectations by the viewers. Photographs, if necessary, to depict a rare case or something, should make sure that it is unidentifiable and a proper consent should be obtained from the patient. Anything posted on social media must be done with clear thought, as once it is released on internet one have less control over how it can evolve [5].

Conclusion
In this modern world, internet plays a major role in day to day life and also in dentistry. Digital way of learning helps us to expand our knowledge easily. It also helps dentists and dental students to know the recent inventions and keeps them updated. Dentistry in social networking sites makes way for more interactive and informative communication which is important to reach new patients. Dentist and patient should use social media in a proper way to avail the benefits and reduce the risk. Though social media in dentistry is still in its outset, several investigations should be made to incorporate these technologies and ideas. In the near future, there will be more usage of social media, hence with proper guidelines social media will help in learning, developing and enhancing collaboration between professionals.

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