

# Resource review - social media and vaccine rejection

[Technology](#), [Information Technology](#)



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Anti-vaccinationism has existed since the introduction of the first vaccine. Individuals who have alternate belief systems have mobilized, typically geographically, to communicate their concerns. This has led to sporadic vaccine rejection movements. More recently, the claim that the MMR (measles-mumps-rubella) vaccine or thimerosal containing vaccines are associated with autism continues to persist despite numerous studies refuting the link (Wakefield, 1998). This rumor, largely initiated by a since-withdrawn paper in the Lancet, has resulted in vaccine rejection and contributed to over 26, 000 cases of measles in Europe in 2011 (Wakefield, 1998). 7

What is social media's role in all of this? Traditionally, geographic proximity was necessary for mobilizing anti-vaccination forces. However, social media has circumvented this potential barrier, allowing individuals from disparate regions who likely would not have otherwise communicated to come into contact. In this process, individuals who had otherwise had their viewpoints rejected and been marginalized can be emboldened and can feel

empowered. Social media also provides these individuals with new dynamic mechanisms to communicate their viewpoints. Researchers have observed this in several ways while studying vaccine concerns. 7

## 10. Conclusions<sup>8</sup>

### 1. Introduction

Vaccination is an important aspect of modern medicine and has been used to avert adverse effects of many diseases. It is believed that vaccines have saved more lives across the world more than any other medical product. The history of vaccination can be traced to 429 BC when the Greek historian, Thucydides noted that those who suffered from small pox in Athens were not re-infected with the disease. During the 900 AD, Chinese discovered and used a vaccination form called variolation which was carried as early as 10th century but was most used between 14th and 17th centuries (Hsu, 2012). The technology used to prevent people from small pox during this time was exposing healthy individuals to tissue from the disease's scabs. Even though variolation caused mild illness and sometimes death, the rate of small pox infections were lower in many populations.

During 1796, Dr. Edward Jenner, a British physician discovered the modern vaccination and proved to the medical professionals that it worked. This led to the support for vaccination in 1803 and founding of the Royal Jennerian institute which popularize vaccination in Europe and United States (Hsu, 2012). However, during 1870s, vaccination encountered violent oppositions as it spreads since some people felt that the compelling them to be vaccinated took away their civil liberties though they believed it works. However, discoveries continued and vaccinations for other diseases were

discovered such as rabies in 1880s, tetanus and diphtheria in 1890s, tuberculosis and whooping cough in 1920s and polio in 1950s among others (Newman, 2012).

Vaccinations are a standout amongst the best tools for biomedical science and public wellbeing. Yet incomprehensibly, the adequacy of vaccination has prompted the re-development of anti-vaccination beliefs. Vaccines may be seen as unnecessary or unsafe on the grounds that frequent rates of vaccine-preventable diseases in developed nations have plunged. Social media allowed different healthcare companies to access potential customers and the presence of too many companies with different products such as herbal care, homeopathy, naturopathy, acupuncture and chiropractic's.

On one hand, social networking has changed how organizations correspond with potential customers of therapeutic pharmaceuticals. Social media have additionally increased access to consumers' communication tools that empower them to quickly look for health information, offer health advises, specifically oversee health conditions, and benefit from, and help a group discussion by evaluating, rating, and depicting the experiences with therapeutic items. Alternately, social networking likewise exhibits new open doors for resistance to therapeutic advances, most quite for those that raise the anger or concern of a few inhabitants, for example, religious restriction to undifferentiated cell or novel ripeness innovations and even vaccination of a few maladies because of the spread of deception (Chatterjee, 2013).

## 2. Description of the Technology and Explanation of the Associated Science

On social media sites people from all around the world are allowed to create accounts where they can control their privacy as well as can connect with

their friends and families all over the world. On some social media sites they can share their photographs and can discuss different topics while on some other sites such as on YouTube, they can even share videos with friends and family members.

People can share their views and opinions on different topics with each other. Social media eliminated the geographic barrier and has allowed people from disparate regions to come in contact. They can even create groups to discuss a particular topic such as vaccination and its effects, a very common topic among groups on social media which resulted in vaccine rejection from parents.

### 3. Historical Development and Context of the Technology

The social media network was developed with the invention of internet technology, however, initially it was limited to email and was not as quick as it is today. Generally, geographic nearness was important for assembling mobilization for anti-vaccination. However, online networking has dodged this potential hindrance, permitting people from different areas who likely would not have overall met to come into contact. It allowed people whose perspectives had otherwise rejected and been minimized could be encouraged and can feel engaged. Social networking likewise gives these people new dynamic systems to convey their perspectives.

### 4. Political and Legal Influences

Every person has a right to share their views with each other freely about any issue or topic, therefore, FDA has not introduced any law about online discussion against vaccine. The FDA strictly prohibited public from purchasing vaccines and alternatives of vaccine online because of high

safety concerns (Poland, 2011).

#### 5. Economic Questions and Considerations

Social media sites are accessed by everyone freely which greatly affected health care costs. Anti-vaccine sentiments increased health care costs because parents who refused vaccine programs have increased the viability of health issues for their children. For example, in Pakistan specifically at Peshawar people refused polio vaccines, which increased the cases of polio in this region and has increased health care costs for parents (Leach & Fairhead, 2007).

#### 6. Psychological Considerations and Sociological Effects

Young generation has a great dependence on social media sites and is spending 10-14 hours daily on the internet on sites like Facebook, YouTube, Twitter, etc. People and communities with different beliefs about technology, has also strengthened their presence on the social media where they can share different blogs and information about different things as per their beliefs. For example, anti-vaccine sentiments shared by communities have greatly affected youngsters as they have missed many vaccine programs in their schools and colleges. In 2010-2011 many school children refused vaccination due to personal beliefs and such beliefs were highly shared on social sites between parents. In this regard social media strengthen the negative beliefs about vaccination among youngsters.

#### 7. The Technology In Its Cultural Context, Media Influence

Social media has influenced culture in different ways and has almost ruined cultural values of different nations. Social media increased the dependence of people on the internet rather than real world friends as well as have

exposed them to several misinformation and misconception about different facts. For example, mothers who are using social media sites are usually taking suggestions from social media friends about their kids and their health instead of contacting doctor. Many people are even using social media sites to criticize different cultures, traditions and religions which resulted in serious conflicts. On the other hand it also improved contact of people with their friends and family living in different parts of the world.

#### Implications for the environment

Social media sites have encouraged discussions and have improved social interactions regardless of geographic boundaries. Social media eliminated several misconceptions about different religions, cultures and nations and has also helped people to learn from one another. On the other hand, too much dependence on social media friends created some issues for people as people have shown trust on information grabbed from this source. For example, the incident of illness caused by a particular vaccine in one country does not mean that such vaccine is harmful, but once a person shared his/her encounter about this, people in many other regions also boycott that vaccine.

#### 8. Environmental Implications

Anti-vaccinationism has existed since the introduction of the first vaccine. Individuals who have alternate belief systems have mobilized, typically geographically, to communicate their concerns. This has led to sporadic vaccine rejection movements. More recently, the claim that the MMR (measles-mumps-rubella) vaccine or thimerosal containing vaccines are associated with autism continues to persist despite numerous studies

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What is social media's role in all of this? Traditionally, geographic proximity was necessary for mobilizing anti-vaccination forces. However, social media has circumvented this potential barrier, allowing individuals from disparate regions who likely would not have otherwise communicated to come into contact. In this process, individuals who had otherwise had their viewpoints rejected and been marginalized can be emboldened and can feel empowered. Social media also provides these individuals with new dynamic mechanisms to communicate their viewpoints. Researchers have observed this in several ways while studying vaccine concerns.

#### 9. Moral and ethical implications

On social media sites people from different religions and communities come into contact where they are sharing their views about different topics. In some religions a particular type of medical care is not valid and when such communities spread negative information about it, it leads to controversies. Usually people share different information without any investigation, therefore, people should never believe on such information blindly.

#### 10. Conclusions

On the basis of the above discussion, it is clear that social media negatively contributes in vaccine programs and had raised health issues and costs. People should avoid believing vaccine side effects and should consult with an authorized doctor to avoid serious health issues in future. This is a delicate



task that needs to be approached with caution. When exploring social media contact, proponents of medical products may encounter a lot of negative sentiment. However, responding to the sentiments may simply provide a platform and greater audience for the more extreme viewpoints. Proponents of medical products need to recognize that opposition to their products will lie along a spectrum. There will be those who are ideologically opposed, and no effort to persuade them will be successful and will likely only intensify their opposition. Researchers have observed this when studying anti-vaccination attitudes and found that individuals often frequent social media sites to hear like-minded viewpoints and are not interested in hearing alternate viewpoints

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