

# DIGITAL LIFE, DIGITAL TATTOO AND THE FILTER BUBBLE<sup>1</sup>: raising the awareness and the cautions on online activities through information literacy education

**Lis Setyowati**

Faculty of Engineering, Diponegoro University  
Jl. Prof Soedharto, Tembalang, Semarang, Indonesia  
Email: lis@ft.undip.ac.id

## **Abstract**

*Digital life has become an extension of human existence, therefore everyone may now take digital life for granted. Many activities, such as communicating, finding and sharing information, etc. which used to be done through the analog media are now conducted through digital ones. However, many of us may not realize the consequences we have to bear with these online activities. An activity done in the digital environment will affect one's real life. Being recorded and archived, these activities will be our digital tattoo. They stay forever. This digital tattoo will not only affect one's reputation but also one's infosphere. Some may be aware of, first, crafting information about themselves, but most do not realize the second. They are not aware that their infosphere is pretty much determined by their digital tattoo. Many search engines and websites recorded every online activity. They create personalization of information services by applying algorithms based on the archives they stored. This seems to be a convenient way to get information. However, it has its own harm. Such service prevents us from getting information beyond our habits and preferences, thus, it prevent us from having a wider perspective. Eli Periser (2011) called this filter bubble. Everyone needs to know this. Through information literacy education, librarians can help to spread the knowledge on how to maintain digital tattoo and to minimize the filter bubble.*

*Keywords: digital life, digital tattoo, filter bubble, information literacy*

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## Introduction

Tattoo is a graphic art that uses skin as the media. It's not just a paint on the surface of the skin but strokes of ink on the deeper layer. Once tattooed, it is hard to be removed. Those who wear one are well aware of this, in fact this is the reason why they get one. They want to abide their memory or put a *signature* that represents the value they hold and believe. Therefore, a tattoo is both unique and personal due to the value for its owner. Since it is unique and personal, a tattoo is sometimes used as a mark to identify someone. This is because only few people have tattoos and each is unique.

That's how we see tattoo in the analog world. Somehow, similarly it applies in the digital world. When man's life is highly dependent upon digital technology, many of their daily activities, including communicating and finding information, are done with the help of digital media. An email account that is used as "a home address", is no longer used merely for receiving electronic mails, but also as "a passcode" needed for many activities from using social media sites or doing transactions through e-banking or commercial sites, etc.

In doing so, we voluntarily share many personal information to many sites we visit. This information is then kept by each website visited. We may leave pieces of information there, including our activities during the course of the visit. And this is how we left our digital footprints. Unlike footprints we left in the analog world, the footprints we left in the digital world is permanent. It is as permanent as a tattoo in the analog world(Enriquez, 2013).

In this article, we discuss the concern over digital tattoo, filter bubble and library role to raise the awareness on these issues.

## Digital Identity

Many of us have a parallel life in both the analog and digital world. In the

analog life, each of us has an identity. Similarly, there is an identity we hold in the digital world. Identity is a set of essential and unique characteristics that are associated with an entity(Abelson and Lessig, 1998), that differs a person from the others (Fletcher, Griffiths, & Kutar, 2005). More than just a home address of one's existence in the digital world, an email account is most common mean through which one shares personal information such as age, sex, occupation, address, and phone number. This information shapes our digital identity.

However personal information is not the only information that shape digital identity. Digital identity is also shaped by our online behaviors, such as sending messages, blogging, social media use, doing e-commerce, etc. Those activities require an email account, which serves as an identifier for each user. This is how everyone leaves trails when he gets into digital world.

Many websites and search engines keep their user's information as well as their online behaviors, because these are highly valued commodity in today's digital economy (Abelson and Lessig, 1998). Such information is so valuable that every corporation would gather as much data of personal information as possible and get it archived. Compiled and analyzed, the archives are used to create a complete user profile for digital marketing purposes.

As business is getting more competitive, every business player has to grab their potential customers' attention. To do this, they have to offer products that suits customer's interest. However, each customers' interest differs. They have their own personals needs, wants, and preferences. Therefore, the product offered is not random, but customized for each individual. They have to cleverly offer all the products that the customers might need. The greater match with their needs, the greater chance they'd buy the product.

For this, they have to collect as much information as possible on who their

customers are, what they do, how much they earn, what they like and don't like, where they've been and what they do, etc. The data gathered is then archived and analyzed to make each user their own profile.

### **Digital Tattoo**

The archives of one's online activities is called digital tattoo (Camacho, Minelli, & Grosseck, 2012). It is also known as digital footprints or digital shadows. Those who are engaged in online activities have their own digital tattoo. It becomes an identifier for them, thus becomes a digital identity.

There are 2 ways digital tattoo can be formed: actively and passively. The first is through intentional activities and the second is through a web browser. Active digital footprints is "personal data made accessible online through deliberate posting and sharing information by the users" (Madden et al., 2007). Any activities intended to craft the information on oneself including sharing personal information such as blogging, creating social media profiles, posting and commenting on blogs or social media, sharing information about active participation in discussion group, or mailing list, crafting personal website, are considered as intentional activities.

However, the responsibility for this is not solely on an individual. One may not be conscious that others may contribute to shape his digital footprints. It is also important to note that, others can shape one's digital tattoo. Others can put our personal information online, such as our employment records becomes public records that are made available for use. And as the 2.0 technology enables content sharing, social media tagging and becomes a tool to share details information with names, places, subject matter, and dates (Madden et al., 2007), adding up to one's digital tattoo. Such things creates passive digital footprints, personal data made accessible online with no deliberate

intervention from an individual. (Madden et al., 2007)

The other way to form a digital tattoo is through a web browser. Many might not aware of this passive digital tattoo. Many search engines like Google are archiving all of its users' activities when browsing the net. In fact, Google is using fifty-seven signals from its users, (Pariser, 2011) and put information such as user's search terms, computer's address, and the unique identifier for their Web browser on the record (Madden et al., 2007)

Not only that many websites we're visiting, track and keep all the information about the visitor, equipped with cookies, these sites are archiving the footprints we left when accessing them. Every single activity from googling, a web visit, online transaction, watching streaming videos, tagging, sending messages to pushing the like button. The more online activities you do, the more digital footprint you leave.

As today's mobile technology facilitates many online activities, it is much easier to leave digital footprints. Smartphones equipped with many software functions, from email, social media (Facebook, twitter, LinkedIn), internet browser, etc, used to capture images, shooting a video. Combined with the use of cloud storage, like Google drive, the digital footprint becomes even more complex. Synching the many devices we have would mean giving way for the companies would make it easier for Google to gather more information from its users, thus, making it easier for the profiling process.

The footprints scattered in many websites might be small, but all compiled, these records can give a detailed user's profile, age, address, job, your online activities, friends, hobbies, likes, preferences. These can even be used to predict what your future actions.

### **Awareness of digital tattoo: the significance**

There are at least two main reasons why it is necessary to understand digital tattoo: personal branding and filter bubble.

### **Personal branding**

Personal branding concerns with how others perceive someone, based on his knowledge about that person. In the digital world, where identities are shaped in computer-mediated environments such as social media networks, blogs, personal website (Labrecque & Milne, 2011), personal information is more easy to find, thus making it easy for others to know one's personal brand. (Labrecque & Milne, 2011; Madden et al., 2007). As long as the information found is positive, one's personal brand is benefited. On the contrary, if the information found is negative, then one's reputation is at harm.

### **Filter Bubble**

Filter bubble (Pariser, 2011) is the effect of an internet when tailored to the personal identity of the individual, thus isolating him from other perspectives (Michelucci, 2013). Personalization is part of a marketing strategy, selling the right product to the right person.

Nowadays, man has to deal with abundant information. With the rapid growth of information, keeping it up becomes a daunting task to do. To better serve the customers, information service providers creates personalized information filtering, so that their customers can get information with ease.

Such personalization would mean that the product should meet one's need. Tailored to one's needs, the information given is customized, based on their profile, either their search history, what they like, what they click, etc. With the help of algorithm, information providers will decide relevant information for each. Companies such as *Yahoo*, *Google*, *Facebook*, *Youtube*, and *Microsoft Live* apply such personalized filtering (Pariser, 2011).

Personalized filtering seems to offer an ideal customization. Each user

will get the information based on what he usually searches for, what he likes or what he preferred to read. If one takes a careful notice on Google search, everyone will get different result for the exact same search terms. Somehow, such filtering also means that there is information hidden from us, thus narrowing perspectives by limiting the information. In other words, one's informational environment is determined by the way we use the media.

In the area of science, this could cause harm because academics often encouraged to get engaged in social media to build networks among their peers, share information, promote their works, and keep up on the latest research.

Take the use of Facebook for example. When you do many clicks on certain subjects on your facebook newsfeed, it would affect the information that will appear on your newsfeed. The clicking activities represent your thought and beliefs. Calling it out loud, it will resonates. You will get similar sound. Imagine if you're only exposed to similar thoughts, then it will be difficult to understand other views, to get connected to new ideas.

Another example of personalized filtering's effect is the use of Google. When someone use *Google* to search for information on celebrity gossips much often than searching scientific journal articles, he might find it rather difficult to get reliable resources for his research paper.

### **Digital tattoo and information literacy education**

Most of us becomes a digital citizen now, someone who use internet on a daily basis (Mossberger, Tolbert dan McNeal, 2007). As a digital citizen, we have to know the world we live on, including digital tattoo and filter bubble and the cost it can cause for our life.

As both a digital citizen and someone who works in the information services sector, a librarian needs to know

about digital tattoo, not only for their own good, but also for their profession, to share the knowledge with their patron, through information literacy education.

It is important to share the following tips in relation to the digital community:

1. Use social media networks wisely. Use private settings and delete any unused social media accounts. Avoid sharing too much information through social media, particularly for important information such as passwords, phone numbers, home address, pin number or images of important documents like ID or passport.
2. Check your own digital tattoo by googling yourself or using application such as BigFoot.
3. Be careful when you install apps, they usually ask your permission to access personal information such email account and contacts.
4. Use secondary email to join social media networks
5. Use a more neutral search engine that protect user's privacy, such as DuckDuckGo.com dan Ixquick.com.
6. Use application for digital footprint management such as Disconnect (Disconnect.me), DoNotTrackMe (Abine.com) and Ghostery (Ghostery.com). These application limit access to to personal information by blocking cookies.
7. When you look for scientific information, it would be best to look into a journal database, instead of Google.

## Conclusion

Your interaction with digital life affect your real life. Your online activities are archived and in some ways will affect your informational environment. Many people are still unaware of this. Librarians can offer the help to raise the awareness among patrons as digital citizens on wise information behavior. Through information literacy education, librarians

can help to spread the knowledge on how to maintain digital tattoo and to minimize the filter bubble.

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