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Digital Footprints – Should We Be Worried?

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“Privacy is the foundation of a free society” Don Tapscott

Abstract

The internet is a big and unforgiving space. In this paper we explore what is the ‘digital footprint’ that we all leave as we move around the online world and how that might affect what happens in the offline world. In the past it was said that ‘today’s newspaper is tomorrow’s chip-paper’, but now what we post online is available today and tomorrow and for years to come. The question is ‘should we be worried about this’, how might it affect our reputation, are younger people sufficiently aware of what the future consequences of their online activities might be? How might we all ‘protect’ ourselves?

Keywords: digital footprints, privacy, reputation

Introduction

In today’s connected world, do we know what we are doing online, in social networks and social media? As these technologies become increasingly ubiquitous, are we sufficiently aware of what ‘trails’ we are leaving behind as we traverse the modern Internet, and should we be worried by them?

Richardson (2008) defines digital footprints as “online portfolios of who we are, what we do, and by association, what we know”— and are an inevitable by-product of life in a connected world. A digital footprint is a trail left by an entity's interactions in a digital environment; including their usage of TV, mobile phone, internet, mobile web and other devices and sensors (Fish 2009). Digital footprints can influence your online reputation and even your credit rating (Wyner 2015); they can save you from having to log in or submit personal details to web sites each time you interact with them. However, “digital footprints are visible to organizations with whom you may have no relationship, whose interests’ conflict with yours, and over whom you often have no control” (Internet Society 2014). Others have called these ‘slug trails’ (Negroponte 1996) or ‘clickstream’ (Battelle 2006). In social media, a digital footprint is the

volume of an individual's online presence; as it relates to the number of individuals they interact with.

The Pew 'digital footprints' report (Madden et al. 2007) identified that 73% of children under 2 already have a digital footprint, due to parents sharing photos and information on social networks. Further, a little over 50% of all children between the ages of 6-9 regularly use a social network. (AVG study¹). Depending on their parents a digital footprint may well begin before birth, with pregnancy scans emailed or put on Flickr, a Facebook account set up in advance or name suggestions posted on Facebook etc. More recently, the Pew Research Center reported that 92% of teens report going online daily, with 24% who say they go online "almost constantly" (Lenhart 2015).

In 2002 nearly half of all internet users (47%) searched for information about themselves online (Pew Internet Project in 2002). Younger users (under the age of 50) are more prone to self-searching than those ages 50 and older. Men and women search for information about themselves in equal numbers, but those with higher levels of education and income are considerably more likely to monitor their online identities using a search engine. However, overall most internet users are not concerned about the amount of information available about them online, and most do not take steps to limit that information. (Madden et al. 2007).

Internet users have reason to be uncertain about the availability of personal data; 60% of those who search for their names actually find information about themselves online, but 38% say their searches don't find anything. One in ten internet users have a job that requires them to self-promote or market their name online. Among adults who create social networking profiles, transparency is the norm.

Shirky (2008) suggests, an understanding of how transparency fosters connections and a willingness to share our work and, to some extent, our personal lives. Sharing is the fundamental building block for building connections and networks; it may take the form of ruminations on life in a blog, photos of the latest family picnic on Flickr, or

¹ http://www.huffingtonpost.com/2013/01/10/children-internet-safety_n_2449721.html?utm_hp_ref=technology&ir=Technology

discussion notes students post to a classroom wiki for others to read and contribute to. Publishing content online not only begins the process of becoming “Googleable,” it also makes us findable by others who share our passions or interests. Although many people are used to sharing content online, they need to learn how to share within the context of network building. They need to know that publishing has a nobler goal than just readership—and that’s engagement.

boyd (2007) points out, we are discovering the potentials and pitfalls of this new public space. What we say today in our blogs and videos will persist long into the future and not simply end up in the paper recycling bin when we clean out our desks at the end of the year. What we say is copyable; others can take it, use it, or change it with ease, making our ability to edit content and comprehend the ethical use of the content we read even more crucial. The things we create are searchable to an extent never before imagined and will be viewed by all sorts of audiences, both intended and unintended. There have also been unfortunate, or even worse cases, where something someone has posted online has been used against them, much later than they ever expected (Birdsong 2016).

Mobile Dimension

Added to this picture, there is the mobile dimension. Digital footprints are not about conventional identity, such as passport, bank account or social security number. Digital footprints come from mobile, web and TV interactions and comprise the digital data and also the Metadata (data about data) of who people are, the true value and why the ownership of this data class is the battleground to be won and lost. However, the original web-based digital footprint and its digital data belonged to the individual at some point. But the individual is currently not empowered to hold or manage this digital footprint. Mobile adds a unique dimension to the digital footprint since mobile provides new content, Metadata and the social context for the digital footprint. In contrast, both TV and the web can provide some data – but the mobile device is unique in terms of its contribution to a digital footprint.

One way to conceptualise this is what is known as the ‘tap model’ (Fish 2009). The taps and the volume of water that flows is a visual representation of the amount of

value that can be created from user data. The water fills a pool which is the representation of the digital data that is stored about you from your interactions. Data from Broadcast/Listen include: viewing times and schedules, preferences for channels and content, timing of programmes and presence (are you actually there, this could be determined through motion, channel hopping, fast forward or a secondary device, PC or mobile listening to your TV preference). Data from the web includes: attention, how long you read a page for, browsing history, search words and spelling, patterns and clicks, content created or viewed and purchases (consume). Data from a mobile would include: location, attention, browsing, search, time, who you are with (Bluetooth), proximity, clicks, creation of data and media, consumer, play lists and presence. The raw data could be location co-ordinates, a click, two-way interactions or a picture; the size of the tap and subsequent flow represents the volume of data that can be added to the digital footprint pool. The greater volume of data, and amount of context around it comes from the mobile environment (see Figure 1).

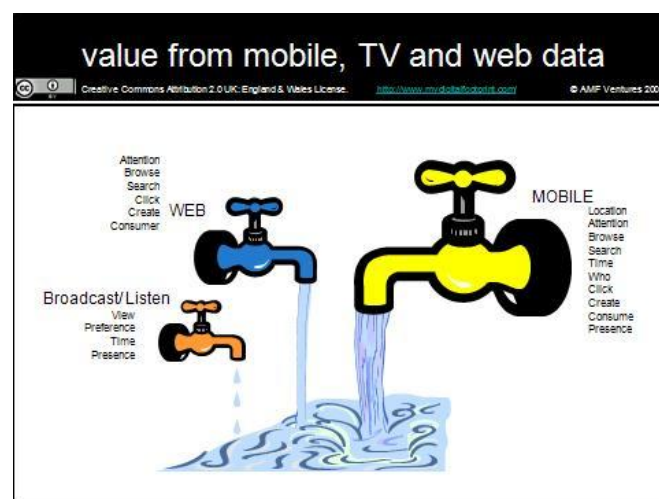


Figure 1 Tap Model of Online Information (Fish 2009)

The Pew Internet (Madden et al. 2007), identifies two main classifications for digital footprints: passive digital footprints and active digital footprints. A passive digital footprint is created when data is collected about an action without any client activation (implicit) and includes data from sensors. Active digital footprints are created when a user deliberately releases personal data for the purpose of sharing information about themselves (explicit). On the web, many interactions, such as creating a social networking profile or commenting on a picture on Flickr, leaves a digital footprint. In a mobile context, CDRs (Call Data Records) are the transactional data that constitute the user's digital footprint. But the mere availability of

transactional data alone is not enough since privacy and data protection rules will apply to the usage of data. It is the ability to store, analyse and create value from the digital footprint that differentiates the study of digital footprints. In other words, if we all left digital footprints – and nothing happened to those footprints – then there are no concerns and no benefits.

Why Worry?

The overarching question therefore becomes, should we be worried about our digital footprints and what might be done to/with them? It is important to know what others know about you, this doesn't mean you need to become obsessed with what others think. If you were in their shoes wouldn't you Google a potential employee or company you were going to work with? You might not read past page 2 of the search results, but you'd probably have a look. You might want to know what other people thought of a product or service before you go and try it, and therefore would read the reviews on Yelp or TripAdvisor before you go/purchase it. It is so easy to look up information on companies and individuals nowadays, compared to the past when you had to read the back issues of the newspaper at the library. The ease of finding out information online means that many people are doing it, although we don't all see this in the same way, eg. parents looking at their children's social media postings are seen as 'snooping' and controlling, but those same youths already freely share the same information with peers online (Moore 2012).

For example, employers increasingly place a greater emphasis on social media reputation, while US colleges are using social media interactions to see whether prospective students should be given scholarships. Cross-Tab's survey of over 275 recruiters and 330 consumers in Europe and the US found: 70% of recruiters in the US (41% in the UK) rejected candidates due to information found online (see Figure 2); 75% of (US) companies (48% in the UK) have hiring policies that encourage recruiters to examine an applicant's online reputation; 84% of recruiters think that online reputations will impact future hiring procedures all or most of the time during the next five years.

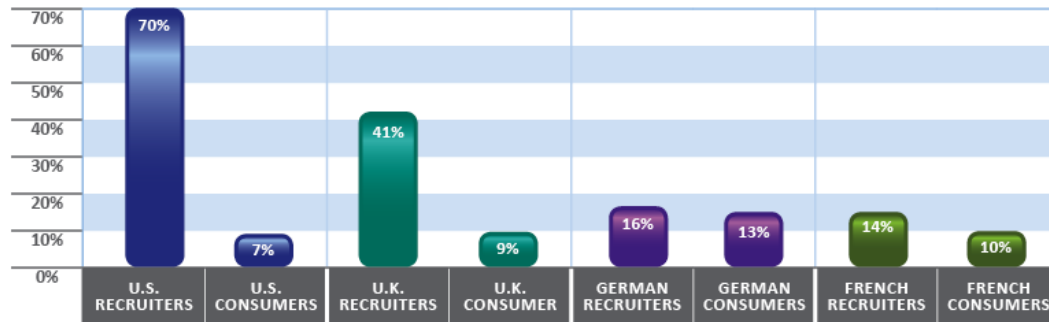


Figure 2 Recruiters and HR professionals who have rejected candidates based on data found online vs. consumers who think online data affected their job search (Cross-Tab 2010)

Unfortunately, very few applicants took their social media seriously, between 7%-13% of consumers (applicants) thought that their online reputation factored into their rejections at all (Cross-Tab 2010). Note that not having a social media presence is not that great either, with apparently 35% of employers claiming they would be less likely to interview someone for a job who did not have a digital footprint (Perkins 2015).

In conclusion, digital footprints are important and we do need to know about them. We also need to 'guard' them, so that the 'right' trail is left out there. There is a key balance between transparency and privacy. There is also a temporal aspect, so what seems okay now, may not be at some later point in your life, hence we need to be aware how the footprints might be used, both now and in the future, and from an increasingly early age. This poses interesting questions about what advice might be given to these prosumers, about the value of sharing and awareness.

References

- Battelle J (2006) *The search: how Google and its rivals rewrote the rules of business and transformed our culture*, vol Rev., vol Book, Whole. Nicholas Brealey, London
- Birdsong T (2016) *Could Your Social Media History Come Back to Bite You?* <https://securingtomorrow.mcafee.com/consumer/family-safety/could-your-social-media-history-come-back-to-bite-you/>. Accessed 22 February 2017
- boyd d (2007) *Why Youth (Heart) Social Network Sites: The Role of Networked Publics in Teenage Social Life*. In: Buckingham D (ed) *MacArthur Foundation Series on Digital Learning - Youth, Identity, and Digital Media Volume*. MIT Press, Cambridge, MA, pp 119-142
- Cross-Tab (2010) *Online Reputation in a Connected World Cross-Tab*,
- Fish T (2009) *My Digital Footprint A two-sided digital business model where your privacy will be someone else's business!* futuretext,

- Internet Society (2014) Digital Footprints: An Internet Society Reference Framework
Internet Society
- Lenhart A (2015) Teens, Social Media & Technology Overview 2015 Pew Research
Center,
- Madden M, Fox S, Smith A, Vitak J (2007) Digital Footprints: Online identity
management and search in the age of transparency. Pew Internet & American
Life Project, Washington, DC,
- Moore SC (2012) Digital footprints on the internet. International Journal of Childbirth
Education 27 (3):86
- Negroponte N (1996) Being digital. vol Book, Whole. Hodder & Stoughton, London
- Perkins O (2015) More than half of employers now use social media to screen job
candidates, poll says; even send friend requests.
- Richardson W (2008) Footprints in the Digital Age. Educational Leadership 66
(3):16-19
- Shirky C (2008) Here comes everybody: the power of organizing without
organizations. vol Book, Whole. Allen Lane, London
- Wyner G (2015) Digital Footprints Abound. Marketing Insights 27 (1):16-17