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Compromising Our Digital Identities at the Alluring Call of the Web

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Abstract:

As we are embracing the allure of the internet, we are consciously or unknowingly building our digital identities in the cyber-world. And, in many cases, in meeting our present-day demand for putting our life at ease, we are fetching threat to our digital traits. The article reviews the current scenario relating to nobility and threats to our digital identities and need for review with a futuristic outlook.

Introduction: Let's start with the narration of a situation. Location: some place of Southern Assam. Date: July 11, 2021. It was the day of Rath Yatra. It must be raining, as it happens every year on this auspicious day. This time too it rained, but at night, with thunderstorms. According to the conventional rules of the location, the electricity went off. It was heard that definitely it will not come at night and there is further uncertainty on its revival in the next day. The author of this narration being a late-night goer with internet and television, that night seemed dull with no such available offer, the only option left was to sleep. Next morning, the situation was more of an awkward one with electricity and broadband internet, mobile data-net all inaccessible, all down. An absolute ugly situation. Children of the house were to attend online classes; they had been moving from upper floors of the house to the terrace with the hope of getting a little bit of mobile network. With all efforts going in vein, they had to give up after some time. The whole day kept all in the house waiting, waiting for the electricity, for the broadband and mobile network. At last, in the evening, there was the relief. Power is restored, broadband is revived and the data-net too. Normalcy in life was back then.

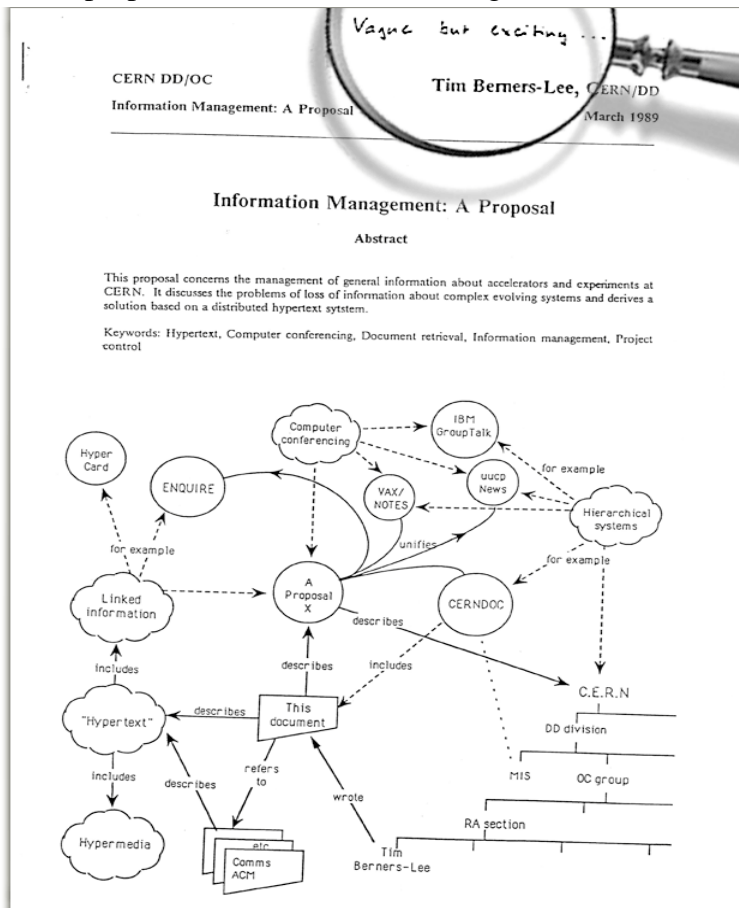
Yes, this is our life at date! Our data-driven life is slowly taking us towards a data-dependent life. There is no question of good or bad. The question is of survival, to adapt to

survive. And, in order to survive, we have to float in the cloud of data. Needless to say, for good reason, it's life 'floating in the clouds' and not 'life covered in clouds'.

We are so used to float in that data cloud, sometimes when that data-cloud disappears for a while, a feeling of helplessness is developed within us. In our thoughts and sub-conscious mind, our data-free life of the past is becoming blurred. Not only that, a darkness of insecurity is being emanating from that psychology of unavailability of data access. We are helpless. We have to survive, we have to move on. As our data-dependence grows, so does the tendency to build our digital identity.

Internet – the story so far: The Internet, now called the Information Super-Highway, has taken over a large part of our way of life in the last thirty-two years, and it is strong enough to play a more controlling role in coming years. In the hope of paving the way for life, we have walked that path, with the expectancy of getting 'the Golden Apple of the Sun.'

Did Tim Berners-Lee, a scientist at the European Council for Nuclear Research (CERN) in Geneva, could guess that his work would open up the horizon for the new medium for human civilization now termed information technology when he had presented to his superiors a science-based proposal for 'information management' in March 1989?



In fact, after four long years of observation, CERN agreed to Lee's proposal. In April 1993, CERN announced the possibilities and plans for this universal means of communication. An international body called the World Wide Web Consortium (W3C) was established in 1994 to improve the quality and accessibility of this open web. That's the begin. Although the proliferation of this technology, even in its initial stage, was so huge that no single person or organization can be credited with its invention.

In the last three decades, Internet technology has become so pervasive in every step of our lives that today it seems possible to manage everything in the world at the behest of that one mouse-click. Today, there are about 200 crore active websites on the internet, with more than 500 crore active internet users (about 64% of the world's population) who are connected to the Internet through 4.5 billion connected devices. There are 26 crore facebook users and 37 crore twitter users in the world presently.

So, how much data do we generate every day? According to a survey by IBM, presently we are generating more than 2.5 billion GB of data per day. 'Byte' being the unit for measurement of internet data, one GB or gigabyte equals 100 crore bytes. According to a simple estimate, the total amount of floating internet data is 50 trillion GB. Data growth rates have been staggering over the past few years. In fact, ninety percent of our internet data has been created in the past five years. This data or information is stored in the internet cloud or server like that fictitious all-pervading 'ether' medium. This means that the information we create is stored on a web server instead of on the hard drive of our computer, which we can use as and when required.

The growing indispensability: Every time we turn towards the search engines like google for information, we are adding new data to the data-cloud. Our current love affair with social media is certainly serving as an important fuel in this data creation. With billions of active users, today facebook is the largest social media platform. Twitter, Snapchat, LinkedIn, YouTube, Instagram and of course Gmail are not far behind. These social media platforms are increasing their contribution to the data-cloud of the world wide web day by day. Also, the data usage statistics of businesses and service providers connected to this internet platform-driven economy, or e-commerce, cannot be avoided. This is not the end. The latest addition to this world wide web is the Internet of Things (IoT), a new innovation in facilitating interaction between smart devices.

However, along with the benefits, disadvantages have also surged. According to a recent report from Sweden's KTH Royal Institute of Technology, about 10 percent of the world's total electricity consumption today is spent on Internet use, which is projected to reach 20 percent by 2025. The Internet, which is responsible for four percent of greenhouse gas emissions, is projected to contribute double that amount by 2025.

Even after that, technology does not stop. Aiming to meet the demand for high-speed wireless internet service, Google recently launched 'Project Loon'. It is being aimed at making internet percolate through a bigger section of mankind – seemingly it is a radical approach to provide internet to rural areas and villages inaccessible till date with a solar-

powered, high-pressure balloon floating about sixty thousand feet above the sea-level. While it might be thought of as Google's strategic interest in attracting more people under the umbrella of its business model, this project has already fetched the attention of the internet community for its innovation and universal reach. With so much innovative strives, the internet now is becoming all-pervading in the truest sense. And, with it's all galore, the internet – more convincingly the humanized internet, is becoming the promising and dependable background medium or 'ether' on which, the whole world sets to run.

As a matter of fact, the use of the world wide web and the data associated with it are growing at such an enormous rate that our world is becoming not only digitized but also 'datafied.' And in this data-driven world, we continue to churn out the data-cloud. Stephen Hawking rightly said that we are now connected to each other through the internet like neurons in the brain.

The issues with our digital identities: Willingly or unknowingly, we are making our mark in this data-cloud or becoming a part of it. In this context, another recent incident is worth mentioning here. A few days ago, one professor at Guwahati University requested the author over telephone to send a soft-copy of a particular research paper published several decades ago. Searching the internet as well as utilizing various other sources, it came out that the online version of that research paper has not been published yet. Luckily, a hard copy of it was found which was then scanned and e-mailed. In the process, what was being done was digitizing a printed research paper. At the same time, sending that scanned soft copy through email amounted to a contribution of around four GB of data to the internet data cloud. That's what happening every time we try to make our life simpler by availing this internet technology. That's also the issue!

Every day we are constantly exchanging a lot of data on computer and mobile leaving our own impression in the data cloud. Websites or social media platforms using artificial intelligence are remembering our treads on the internet, often, in return, reminding us our past histories. Suppose, you have made a post on facebook a year back, facebook would remind you of that after one year-round. If you are thinking of buying something on amazon and put the item in amazon's cart and left it for your decision at a later time - amazon would repeatedly send you emails or notifications asking you to make a decision. If you search for something on a search engine or e-commerce website or on an app, your search history will be stored therein. Gradually, your likes and dislikes would be measured by the app or website on the basis of which it would start assisting you in your search putting forward its suggestions. That is artificial intelligence. Overall, in all these processes, without your knowledge, your digital identity is being formed. In fact, such digital identity has already been formed for each of us who roam in this cloud of data and this consolidates as we invest more of our time on internet.

Now coming to Digital Identity, plainly, it refers to digital data corpus created or assembled digitally to identify an organization or personify an individual. This digital attribute might be one's static identity based on username, password, date of birth etc., or

dynamic one based on behavioral trait such as online search history, activity on social media or online purchase history. It develops out of one's interaction in cyberspace. In fact, digital identity closely relates to our online persona which reflects, to a great extent, our social identity [1].

Coming to the question of its vices and virtues, the dignity of our digital identities in this net-world depends on trust, authority and authentication. However, with the formation of this identity there comes the question of security, as well as the issue of identity theft through security breaches. The basic point is, as long as there is security threat whatsoever minimum, there is always risk of such theft. Presently, even a business is booming worldwide on such security breach. It can be called the grey market of this net world.

With eye-washing attraction of 'cyber offers' and with the speed, scale and strength of penetration of web in every walk of our lives, we are becoming commodities, with minimum control on exposure of our digital identities to risk. With billions of active users, each of whom exposing himself or herself to the cyber community as a commodity at every exposure to internet, the sovereignty of individual's identity is being put to risk every moment. This is because of incapability of present web network to thoroughly assess such threat perception and prepare shield. Such vulnerability is being exposed every now and then when we encounter setbacks like bank fraud or social media hacking. Harnessing virtues of the web is positive, but finding remedy of the harm is even more essential. Otherwise, we would just be turned into pawns of such security breaches every minute, every hour - in every interaction on the web. The gravity of the situation is so deep that it demands secure and sovereign control over our digital identities. Our digital information should be distributed only at our will and should be by no way copied or overwritten. All our personified data should be encrypted so that security threat is minimized, if not removed completely. A transparent public transaction is the need of the hour in this regard where the level of transparency would be dominated by the technology-measure to combat potential privacy challenges. Our identities are our own and private. This right should be ensured at the state level, institutional level or even at individual level.

Interestingly, digital identity is not just limited to data relating to one's personal privacy or social identity. It may lead to financial theft or even criminal threat. For instance, as per *Nilson report*, in the year 2016 only, an amount of 21.84 billion dollars have been lost in grey market only due to credit card fraud. This has put the banks to think on their KYC verification process anew [2]. Also, as per recent report, the price of a stolen identity fetches on an average 21.35 dollars to a hacker. This is a cyber-enabled crime which, side by side, has also become a very profitable business. Here data are stolen with data as weapon, breaching the digital ecosystem. There is another important underlying conflict - increase in security may result in intrusion into privacy. Security at the expense of privacy should not be a better choice. In this case, layer-to-layer validation and data protection is the need of the hour. Such vices of the web-world have also resulted in necessity for developing secured Identity Management System (IMS) to ensure that our digital avatars remain securely encrypted. One such approach is developed by a non-profit group *The Humanised*

Internet based on a new technology named as *Blockchain* [1]. However, the penetration of such technology is not that rapid as the proliferation of the world wide web.

Looking forward: With around 5 billion GB internet traffic, 3.5 million MWh electricity usage, 3 million ton of carbon-di-oxide emission per annum, we just cannot afford to carry on with the compelling necessity of cyberworld for the sake of getting services at ease. The internet has given us access to almost everything, just as it has made us (unknowingly) accessible to many things. As there is no substitute to digital identity protection and related privacy, this should not be compromised just to avail the services provided on the internet-based platforms. As a developing race we should carry forward the virtues of this world wide web. But the hidden vices should be minimized maximally to get a smooth, safe and ambitious sailing of our information society.

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