WTC website	https://www.comsoc.org/committees/technical-committee/social-networks
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CHAIR'S MESSAGE

When social media dominates the traffic over the Internet and mobile communication networks, there are further insights and engineering that could be developed based on understanding social networks in depth. Such interplay between technological networks and social networks have so many different aspects to inspire IEEE Communications Society members toward further frontier of communication technology and benefits of human society. Under such background, Technical Committee on Social Networks (TCSN) has been established since 2016, after incubation as a sub-committee in Emerging Technology. When we get to two years old, we are launching the TCSN Newsletters to allow more fluent exchange of vision, ideas, and technological opportunities, in addition to website and social media platforms. We have to appreciate remarkable volunteers at TCSN to make this inauguration issue come true. Last but not the least, we wish TCSN Newsletters serving an effective means for this exciting multi-disciplinary knowledge on social networks to blend humanity and technology in an even better way. Most important, please continue your interest in social networks and actively participate or initiate more volunteer services to TCSN and IEEE Communications Society.

Best wishes,

Neeli Prasad, Chair, TCSN, 2018-2021

UPCOMING CONFERENCES & CFP FOR SOCIAL NETWORKS TRACK

IEEE ICC 2021: June 14 – June 18, Montreal, Canada
IEEE Globecom 2021: December 7 – December 11, Madrid, Spain

Social networks have become prevalent forms of communication and interaction on the Internet and make up an increasingly part of the network traffic. As a result, social networks have attracted significant research interests in a large number of related areas. Social networks have traditional been studied outside of the technological domains, but focus is now changing towards networking challenges such as cloud, privacy, data analytics, etc. while still keeping the social perspective such as focusing on improving quality-of-life. The interplay between social networks and technological networks such as mobile networks and mobile computing is becoming still strong and many areas are still to be exploited.

ADDRESSING TRUST IN ONLINE SOCIAL NETWORKS

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Online Social Networks (OSNs) have grown impressively over the last decade and are still evolving rapidly. A plethora of social networks platforms and applications have been developed, promising direct and fast communication and information, reaching up to high levels of specialization on topics addressed. Since the launching of Facebook, users have been massively joining the platform, making it the most popular among OSNs, even though the landscape of social media has changed since then with many new (and some quite successful) platforms appearing. However, the centralized nature of all major social networks, operated by a single entity, has created skepticism, especially as regards content control, neutrality against ideas that are expressed by users, and censorship. As a result, new decentralized solutions gain more and more ground. The successful paradigm of Mastodon is an excellent example of this, while the announcement by Twitter's CEO Jack Dorsey of the Bluesky project in 2019 is characteristic of the trend towards decentralization of social networks. But what exactly are the differences between these two architectures and what the decentralized OSNs offer?

Decentralized social networks, as their name indicates, offer social networking services that are distributed across distinct providers, allowing even the use of participating nodes that are owned by individuals. Though users' data in centralized platforms are in the possession of a very small number of social network providers, in decentralized OSNs, distributed information management schemes are employed, empowered by trusted servers or peer-to-peer systems. This gives decentralized social networks anonymity and an advantage against censorship practices. What is more important however, is that decentralized social networks guarantee ownership of personal data often linked with content monetization models. Two core technologies empowering decentralized platforms are Blockchain technology and Peer-to-Peer communication. The

combination of these technologies allows users to share resources in the form of structured blocks, without the need of using any centralized information management scheme.

An important issue which is attracting attention and is becoming increasingly important is reliability of the information exchanged over OSNs. The spread of false information, whether deliberate (disinformation) or not (misinformation) can be extremely dangerous. A representative example is the extremely fast sharing of false health advice during the first weeks of the COVID-19 pandemic, which doubted its existence, creating confusion among the population. A survey of Reuters Institute for the Study of Journalism at the University of Oxford reports that during the coronavirus pandemic one-third of people in six countries (U.S., Spain, Germany, Britain, Argentina and South Korea) have seen misleading information on Covid-19 on social media[1]. So, the questions which is becoming more important than before is how to deal with misinformation?

Efforts in this direction have led to several initiatives, trying to address the challenge of information verification in social media. The EU's H2020 innovation action program ICT-28-2018 - Future Hyper-connected Sociality includes projects Weverify, SocialTruth, Provenance, EUNOMIA and Soma[2]. Out of them, EUNOMIA is specifically inspired by and prioritizing OSNs, implementing an architecture that is similarly decentralized and focused on supporting "information hygiene" practices. Recommendations such as "check the source", "check whether the account is a bot", "check how the information reached you" and "flag untrustworthy information for the benefit of others" are regularly recommended to help curb the spread of misinformation, but without explaining how. EUNOMIA comes to address this gap. It empowers social media users to critically assess the information they come across and to act as human 'trust sensors' in their network. The usual LIKE functionality is effectively replaced by a TRUST one.

Using the aforementioned technologies of P2P and Blockchain, EUNOMIA implements an architecture capable of supporting this vision. Tested initially on decentralized social media platforms (Mastodon and Diaspora) and featuring a "Digital Companion" (a tool installed on the user's device), it offers its users the ability to interact with the content of social networks, expressing their assessment of the trustworthiness of information they come across.

Featuring a responsive web-based and a personal (mobile/wearable) app version, the Digital Companion can communicate with one or more social networks, allowing the active involvement of social media users. Users can read, reply or "trust" (as opposed to like) posts, while having access to analysis tools, especially an interactive visualisation graph of the information cascade (showing how information reached the user and how it was modified on the way), and a wide variety of indicators that may help users assess the trustworthiness of what they read (from

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[1] https://www.politico.com/news/2020/04/15/one-third-of-people-have-seen-misleading-info-on-covid-19-on-social-media-187540

[2] https://weverify.eu/, http://www.socialtruth.eu/, https://www.provenanceh2020.eu, https://www.disinfobservatory.org, http://eunomia.social

indicators of bot activity, to simple statistics and more advanced AI-based subjectivity and sentiment analysis).

This human centric approach offers a flexible way of navigating through the chaotic universe of social media. Instead of a black and white / true or false automatic characterization of news, users can make better informed assessments of the trustworthiness of what they read on social media and actively contribute to the process of fighting the various types of misinformation. Technology comes to support this, not in the form of a firewall blocking information, but in the form of an assistant, which allows the users to access information (in the form of the indicators and information cascade) that is not normally available to them, thus democratizing social media post verification and countering the current trend of social media platform providers being the arbiters of what is trustworthy.

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