# NOSTR and Damus: New Digital Communication Tools

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COMM-360: Social Interaction in the Digital Age

# What is NOSTR?

- NOSTR is an acronym, which stands for *Notes and Other Stuff Transmitted by Relays.*
- It is a protocol, similar to HTTP or TCP-IP, which others can choose to build upon.
- It is not an application or a service provided by a specific group or company.
- It can be used to create global, decentralized, and censorship-resistant social media.

# How does NOSTR Work?

- NOSTR works using three main tools
  - Relays
  - Public/Private key cryptography
  - Clients
- Relays act as small servers which anyone can choose to run, which store user data published by Clients *(NOSTR, a simple protocol 2023)*

# **Why does NOSTR Work?**

- Since the protocol is permissionless, anyone can run a relay, make a client, or join as a user
- Without a central server managed by a company to control the data, users can have a more *private, censorship-free, and personalized social media experience*
- By introducing a new protocol model, technology monopolies which use user data, advertisements and algorithms to negatively impact their users lose their power *(Bitcoin Magazine, What makes Nostr a different platform 2023)*

# **What is Damus?**

- Damus is the first NOSTR client built for iOS.
- Damus serves as a Twitter alternative, and presents notes and media it fetches from NOSTR in a similar style
- Anyone can download the App and create content, follow other users, or reply to other posts
- Running a NOSTR Relay yourself is not a requirement to use Damus *(Damus: What is it? 2023)*

# Visualizing Damus

Damus App Logo:

Damus Home Page:

# Damus App Layout

- Damus consists of four main tabs, found at the bottom of the screen
  - Home: Your feed, showing posts from people you follow in pure chronological order
  - Messages: Direct messages from other users and message requests
  - Universal: Shows posts from all users on your Relays, also in chronological order
  - Notifications: Shows likes, replies, following updates, and other user interactions

# What forms of communication take place on Damus?

- Users can share
    - Tweet-like notes (although there are no character limits)
    - Images
    - Videos
    - Bitcoin via the Lightning Network

# Example of a Damus Post:

# What Types of User Responses are Possible on Damus?

- Users can respond to posts by
  - Directly replying to the post
    - This can be done by either including the Note ID in a new post, or directly replying under the original post
  - Reposting
  - Liking (Same as on Twitter, Instagram, etc.)
  - Zapping!

# **What are Zaps?**

Zaps are a new form of social media interaction in which a user tips another users post

Zaps are made possible using the Bitcoin Lightning Network, so small amounts of money (>1 cent) can be sent instantly from user to user without having to trust a third party

With no ID, no bank account, and no credit card provider, Damus users can still receive tips for valuable content

# **Why are Zaps important?**

Since Damus is a NOSTR client, speech is impossible to suppress or censor

With Zaps being native to the app, there is a natural economic incentive for users to provide valuable content to others

Zaps can facilitate crowdfunding, empower silenced minorities or political dissonants, and naturally promote more positive and valuable content

# Damus Pros:

- Censorship resistant
- No company or governing entity
- Possible to use anonymously
- Easy, intuitive, and user friendly NOSTR interface which emulates Twitter
- Zaps integrated natively
- Secure Public/Private key model in which only users can control their accounts
- Doesn't collect/harvest any user information or data

# Damus Cons:

- Very new - was released early February, 2023
- Much smaller network effect compared to other social media platforms
- Still being polished
  - Code is mostly produced by motivated volunteers
- No company or third parties
  - While this can be a pro, it also means you must manage your own passwords and relays, which can still be too technical for casual users

# Why do we need NOSTR/Damus?

"Social media has developed into a key way information flows around the world. Unfortunately, our current social media systems are broken:

1. Uses your attention to sell ads
2. Uses bizarre techniques to keep you addicted (refer to point 1)
3. Decides what content to show you based on a secret algorithm that you can't inspect or change
4. Has complete control over who can participate and who is censored
5. Is overrun with spam and bots

With NOSTR, individuals can not only express themselves through their content, but also through the type of platform they use. Those who want to build censorship resistant and decentralized alternatives to modern social media can do so in whatever manner they choose." (NOSTR, a simple protocol 2023)

# What audience does it currently appeal to?

Damus remains a fairly niche platform

Most users are

- Bitcoiners
- Network enthusiasts
- People in countries which heavily censor media
- Sovereign individuals/freedom technology advocates

# **What audience could Damus appeal to?**

Damus is a better communication tool than traditional social media companies in three major ways

- No trusted third party
- Native peer-to-peer payments network
- Interoperable clients which allow users to escape advertisements, harmful algorithms, data harvesting, and spam/bots

In this sense, Damus and other clients like it can gain much border appeal as an individual-oriented second generation of social media
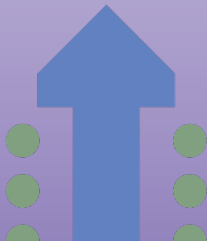
# Recommendations for Improving Damus

Even in its infancy, Damus is already a robust social media tool

However, it could be improved by

- Implementing more Twitter-like functions (such as polls and quote tweets)
- Making it easier to switch between profiles
- Adding an optional featured page where new users can find popular profiles to follow

# Communication Theories Applied to Damus

In my personal experience and opinion, Damus is a tool to easily develop Hyperpersonal communications.

With no algorithms or companies standing between individuals, the interactions you have feel much more authentic and valuable.

The ability to easily send and receive tips also makes for a much greater sense of community and an incentive to be positive and work together.

# Communication Theories Applied to Damus cont.

One quirk of NOSTR is that since there is no central server, there is also no way to delete posts that you broadcast.

This adds increased accountability. Unlike others tools where you can feel safe being more rude or negative than you would otherwise be in real life due to the promise of possible deletion, Notes live forever. Your words matter and have impact, so you must choose them wisely!

# Final Summary

- NOSTR is a new digital communications protocol
- Damus is a client which uses NOSTR, built for iOS users
- Damus acts as a Twitter alternative and serves many of the same functions
- Damus has additional benefits, like Zaps, reduced spam/bots, and no algorithms or data harvesting
- Damus has some drawbacks, like a lower ease of use for casual users, and no centralized authority to restore accounts or control development

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