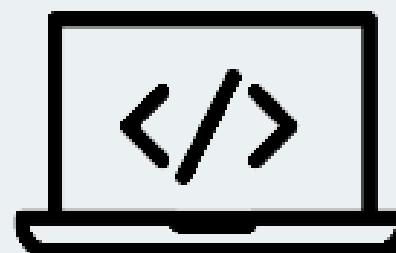




# SOCIAL DEX

Create a web application that interfaces with the  
Ethereum's Ropsten blockchain



edited by Matteo Battilani

# INDEX

1. PROJECT DESCRIPTION	3
2. TECHNOLOGIES USED	4
3. THE USER INTERFACE	5
3.1 Registration	5
3.2 Login	6
3.3 Update Password	7
3.4 Homepage	8
3.5 Detail Post	9
3.6 Edit Post	10
3.7 DeletePost	11
3.8 Create Post	12
3.9 User Profile	13
3.10 User List	14
3.11 Search function	15
4. ENDPOINT API	16
5. CONCLUSIONS	17

# PROJECT DESCRIPTION

Social Dex was born as the final project of the Start2Impact guide "Django and Redis". The goal was to implement a Django project that allows a user to write posts, and that these are automatically saved on the Ethereum Ropsten blockchain. On the last page of this presentation, there is a link to the live demo of the application.

## THE MINIMUM REQUIREMENTS FOR THE PROJECT:

- registration and login section
- section for creating a new post
- section for administrators only
- section with the user's PK code in the URL
- alert in case of IP address change
- json response of posts written in the last 24 hours
- control that prohibits the word "hack" in posts

## THE FUNCTIONALITY I WANTED TO ADD:

- personal profile section
- update password
- detail, edit and delete posts sections
- search function

# TECHNOLOGIES USED



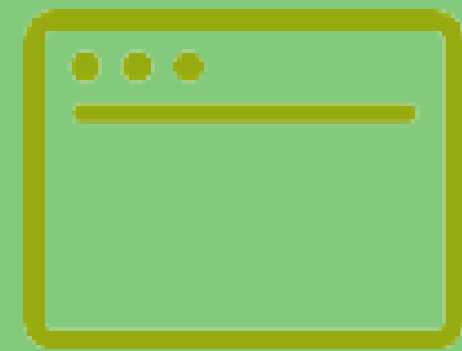
**DJANGO**  
BACKEND



**SQLITE**  
MAIN DATABASE



**PYTHON**  
LANGUAGE



**BOOTSTRAP**  
FRONTEND

# USER INTERFACE

## REGISTRATION

- The registration page is accessible from the "Sign Up Now" (on the login page) or "Registration" (on the menu of the basic template).
- Once you have entered your data and pressed "SignUp" (at the end of the registration form), the user is redirected to the login page.

Social Dex Looking for something? Search Registration Login

Join Today!

Username\*

Required. 130 characters or fewer. Letters, digits and @/./+/\_ only.

Email\*

Password\*

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

Password confirmation\*

Enter the same password as before, for verification.

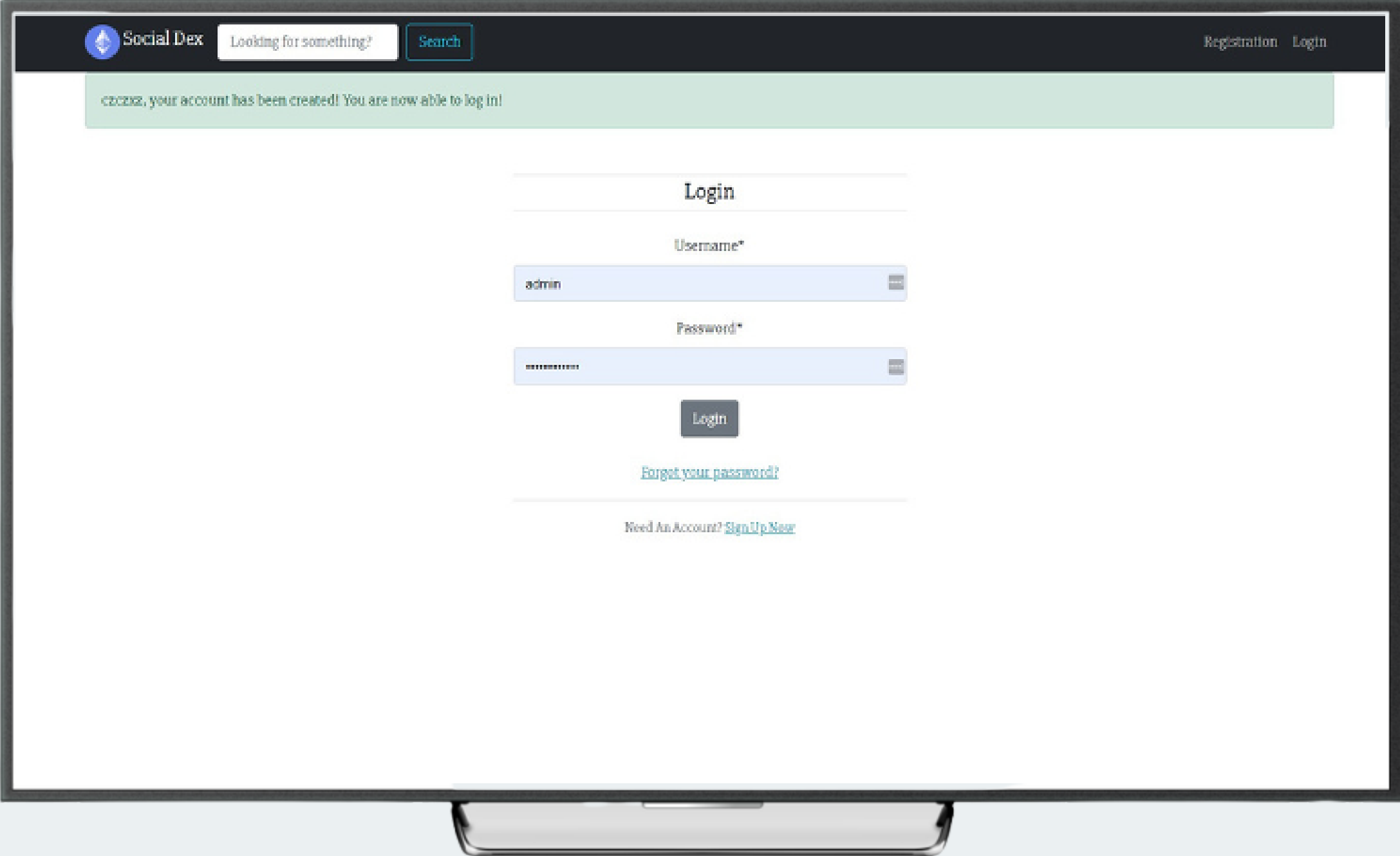
Sign Up

Already Have An Account? [Sign In](#)

# USER INTERFACE

## LOGIN

- The login page is accessible via the "Login" (on the menu of the basic template) or "Sign In" (on the registration page) buttons.
- Once the user has entered their data and pressed, the user is redirected to the Homepage.

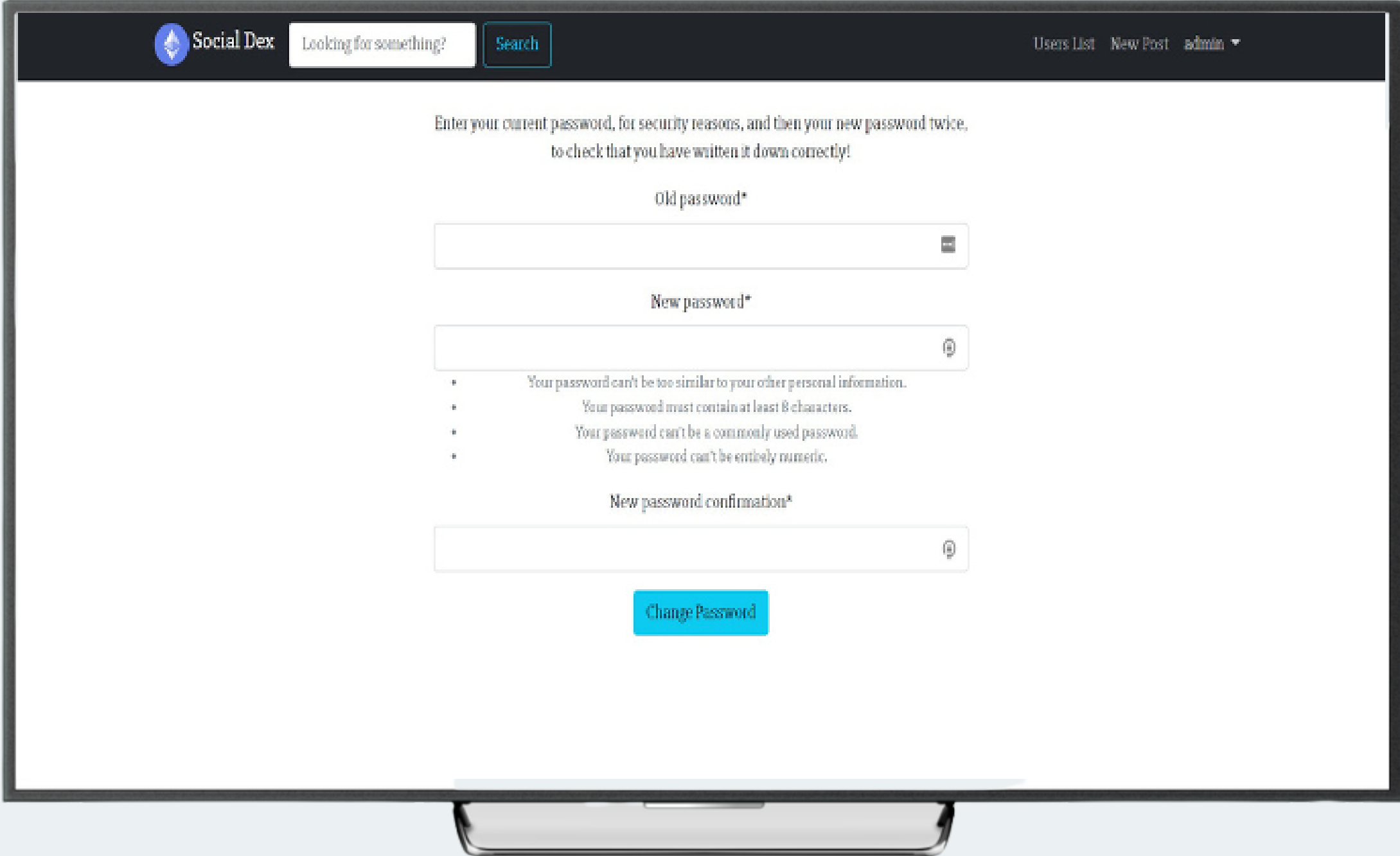


The screenshot displays the login interface of the 'Social Dex' application. At the top, a dark navigation bar contains the 'Social Dex' logo, a search bar with the placeholder text 'Looking for something?', and links for 'Registration' and 'Login'. A green success message banner at the top of the main content area reads: 'czczx2, your account has been created! You are now able to log in!'. The central login form is titled 'Login' and includes two input fields: 'Username\*' with the value 'admin' and 'Password\*' with masked characters. Below these fields is a 'Login' button. Underneath the button are two links: 'Forgot your password?' and 'Need An Account? Sign Up Now'.

# USER INTERFACE

## PASSWORD UPDATE

- The password change page can be accessed from the basic template menu by clicking "Update Password".
- For security reasons it is necessary to enter the old password before registering the new one.

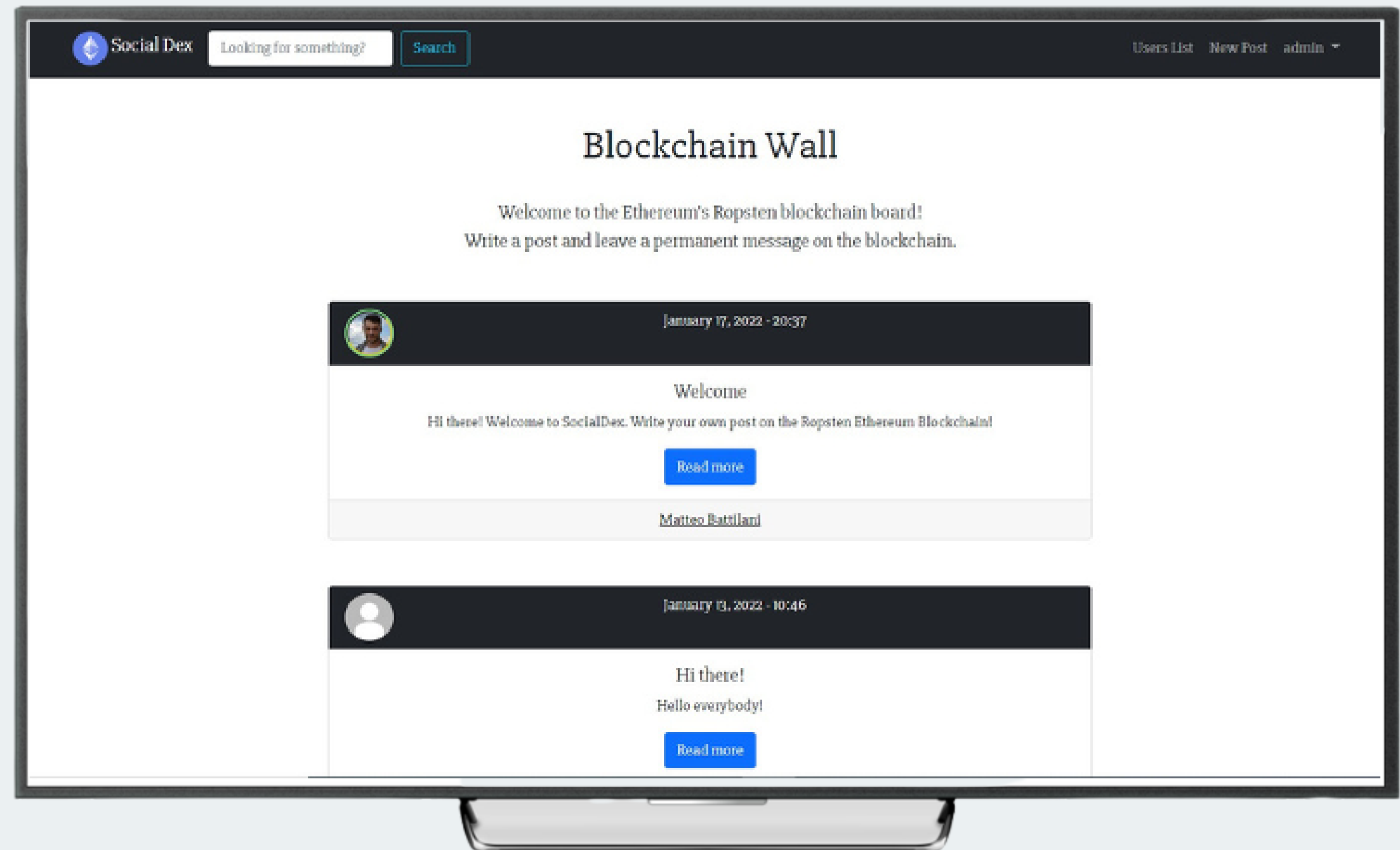


The screenshot displays the 'Social Dex' password update page. At the top, a dark navigation bar contains the 'Social Dex' logo, a search bar with the placeholder 'Looking for something?', and a 'Search' button. On the right side of the navigation bar are links for 'Users List', 'New Post', and a user profile 'admin' with a dropdown arrow. The main content area has a white background. It begins with a text instruction: 'Enter your current password, for security reasons, and then your new password twice, to check that you have written it down correctly!'. Below this are three input fields: 'Old password\*' (with a clear button), 'New password\*' (with a strength indicator icon), and 'New password confirmation\*' (with a strength indicator icon). Between the 'New password\*' and 'New password confirmation\*' fields, there are four bullet points listing password requirements: 'Your password can't be too similar to your other personal information.', 'Your password must contain at least 8 characters.', 'Your password can't be a commonly used password.', and 'Your password can't be entirely numeric.'. At the bottom of the form is a blue 'Change Password' button.

# USER INTERFACE

## HOMEPAGE

- The homepage shows a list of all posts created by users.
- The most recent posts are at the top.
- All posts show a "Read more" button from which you can access the details of a post.
- Only registered users can view the posts.
- Users who are not registered or logged in will see a blocking message inviting them to log in or register.

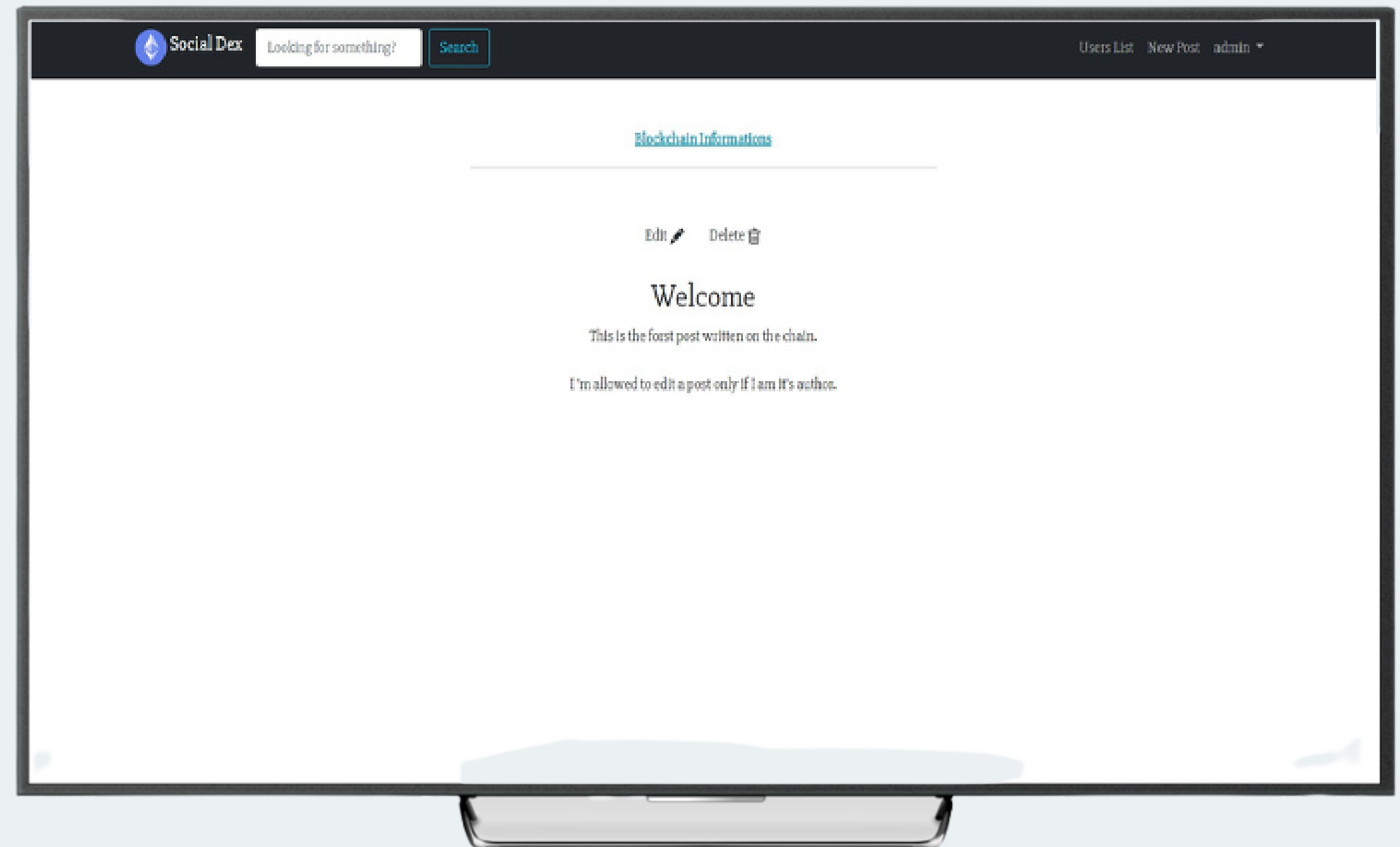




# USER INTERFACE

## POST DETAIL

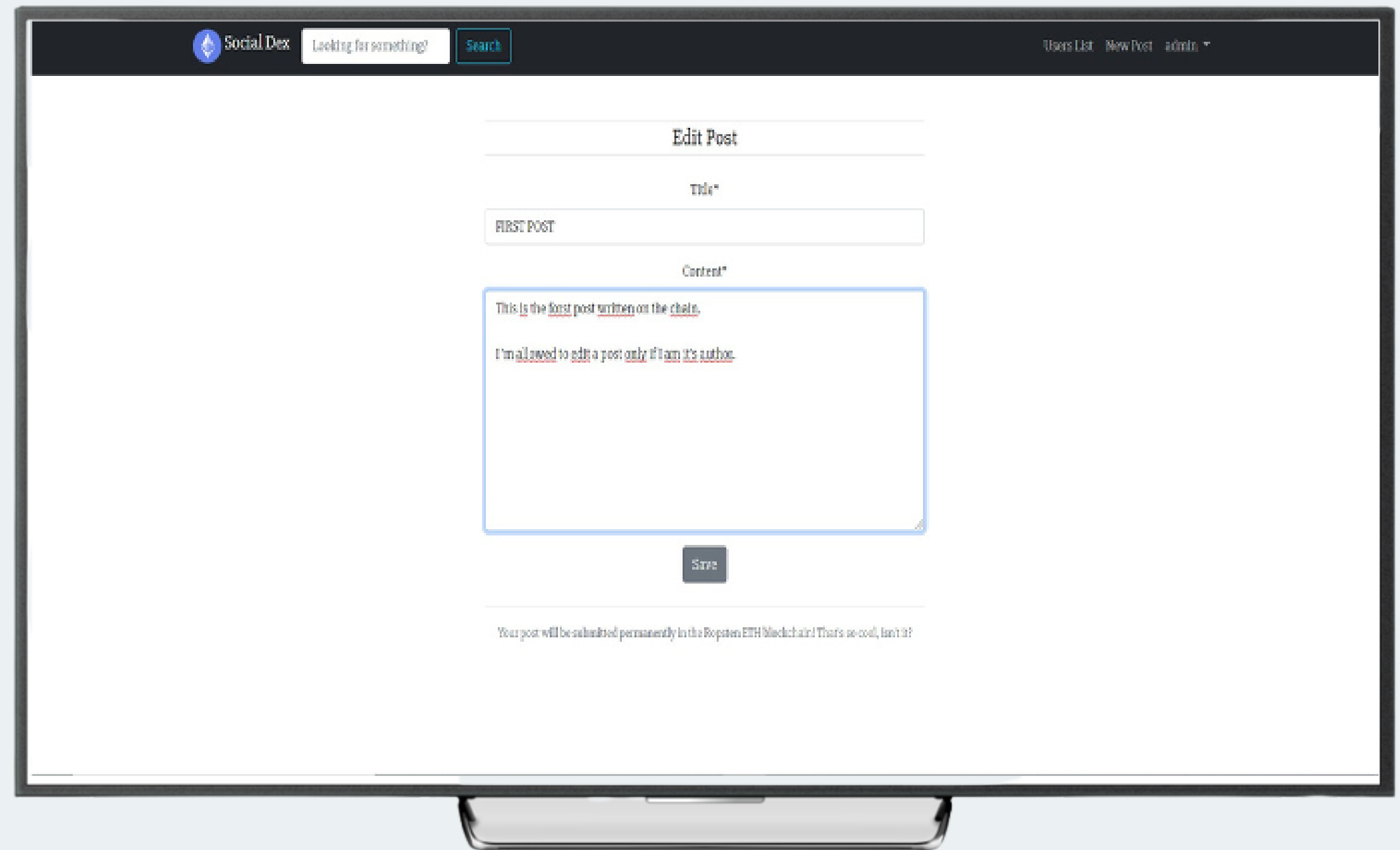
- The detail page shows the entire text of a post. If the user who is viewing the detail is also the author of the post, then it displays the icons for editing ("Edit") and deleting ("Delete") the post.
- Only the owners of a post can view the edit and delete options.
- By clicking "Blockchain Informations", the user displays the transaction identifier and hash.



# USER INTERFACE

## EDIT POST

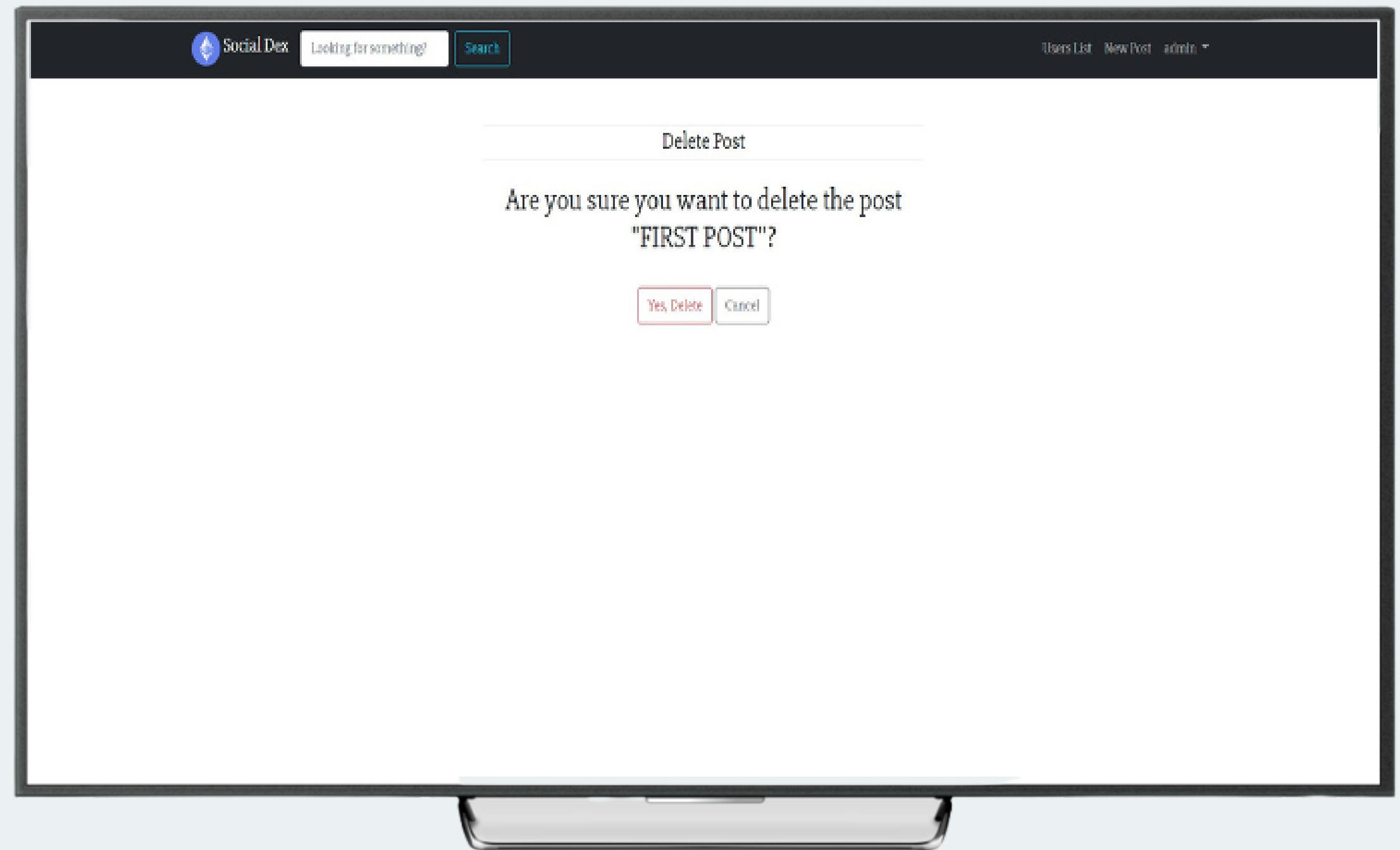
- The edit page of the post is visible and accessible from the detail page, only for the author of the post.
- This section allows you to edit both the title and the content.
- By clicking the 'Save' button, the post will be edited and saved again on the blockchain.



# USER INTERFACE

## DELETE POST

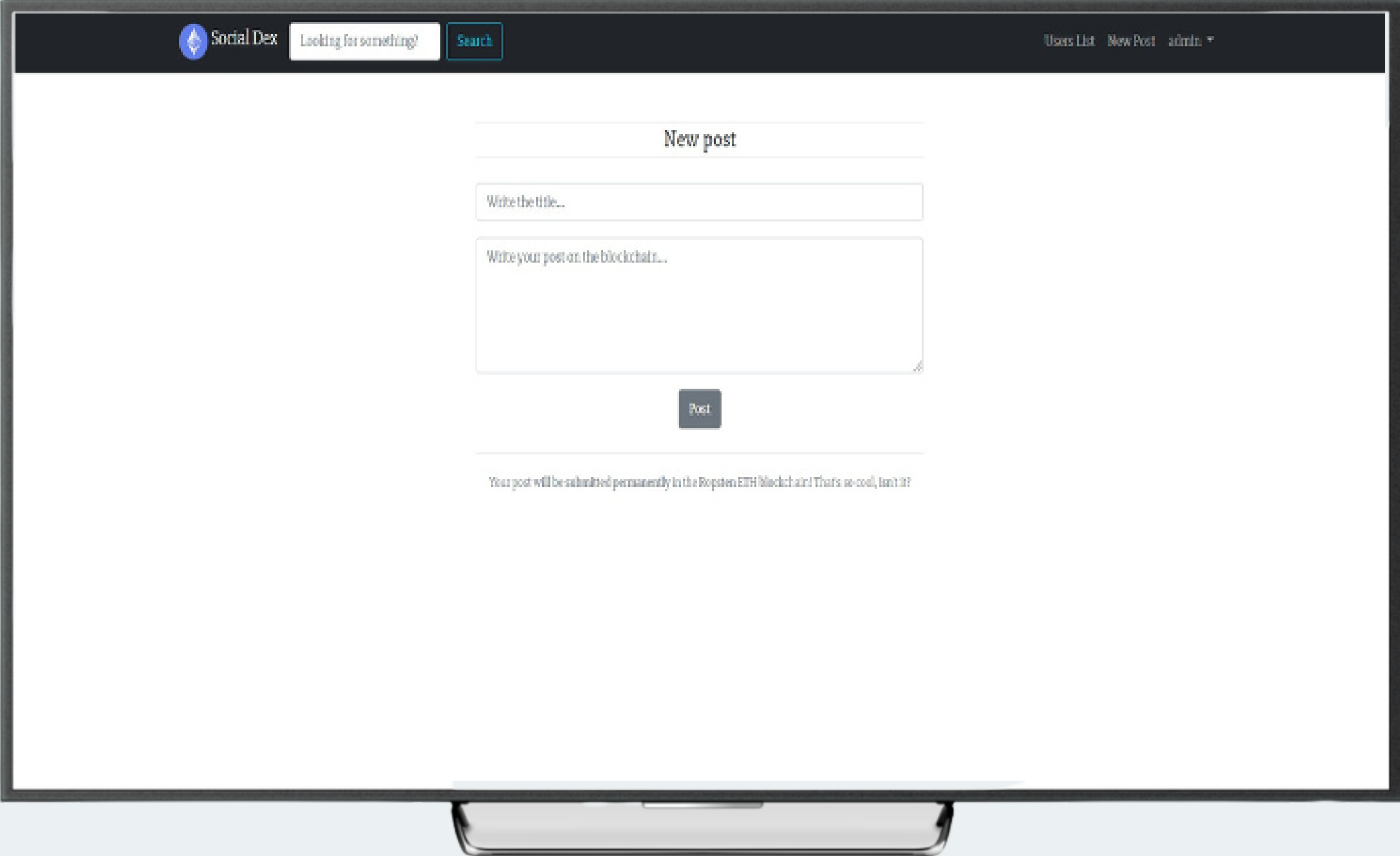
- The post deletion page is visible and accessible, from the detail page, only to the author of the post.
- The page asks the author to confirm or cancel the operation from the author.
- By clicking the "Yes, Delete" button, the post will be deleted, but of course it will not be deleted from the blockchain.



# USER INTERFACE

## CREATE POST

- The post creation page is visible and accessible from the basic template menu by clicking 'New Post'.
- Only registered users can write posts.
- By clicking the "Post" button, the post will also be saved on the blockchain.
- The user is then redirected to the detail page of the post.

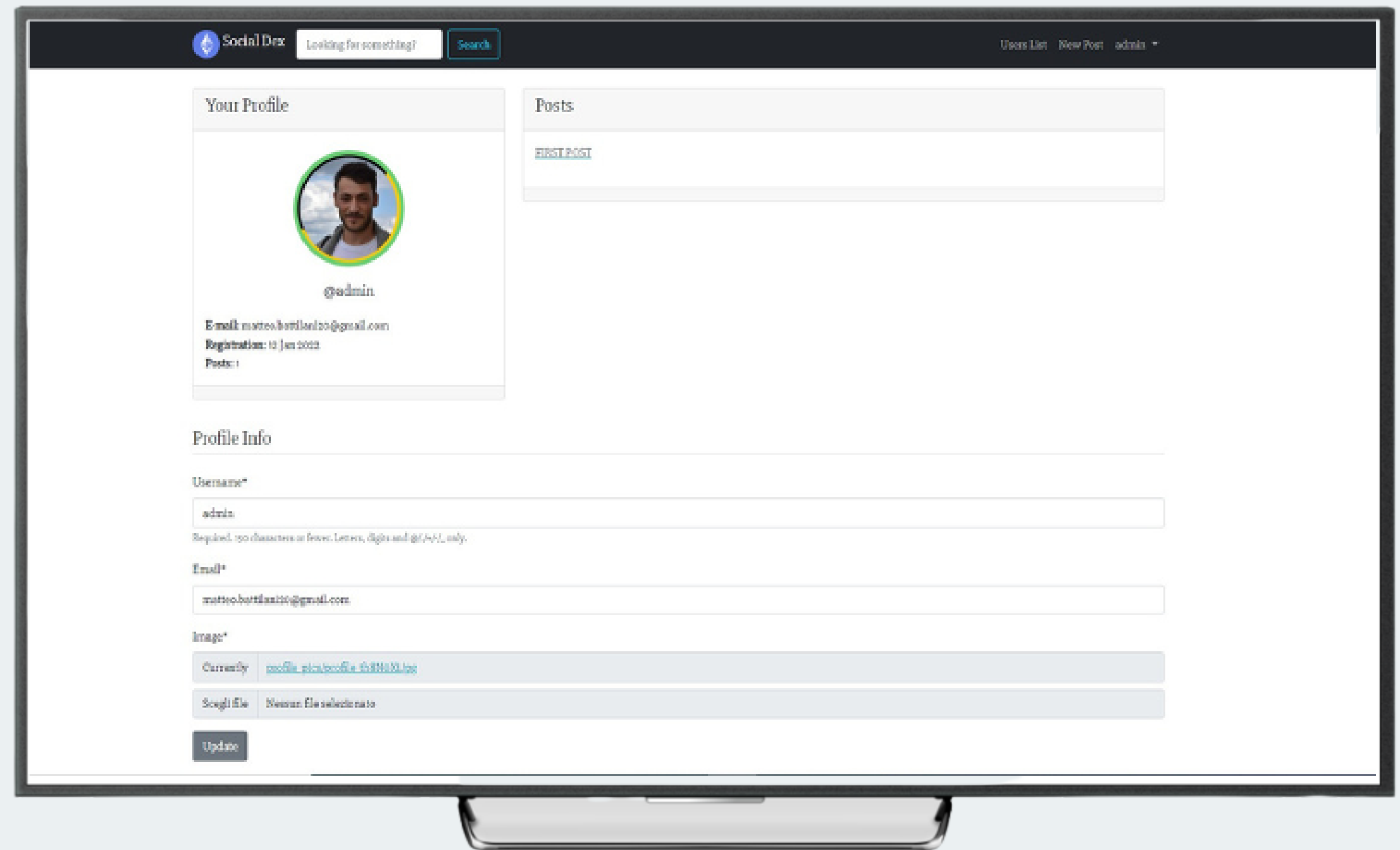


The screenshot shows a web browser displaying the 'New post' form on the 'Social Dex' website. The header bar is dark blue and contains the 'Social Dex' logo, a search bar with the placeholder text 'Looking for something?', and a 'Search' button. On the right side of the header, there are links for 'Users List', 'New Post', and 'admin'. The main content area is white and features a 'New post' title. Below the title, there is a text input field for 'Write the title...' and a larger text area for 'Write your post on the blockchain...'. A 'Post' button is located below the text area. At the bottom of the form, a message states: 'Your post will be submitted permanently in the Eosopen ETH Blockchain! That's so cool, isn't it?'

# USER INTERFACE

## PROFILE

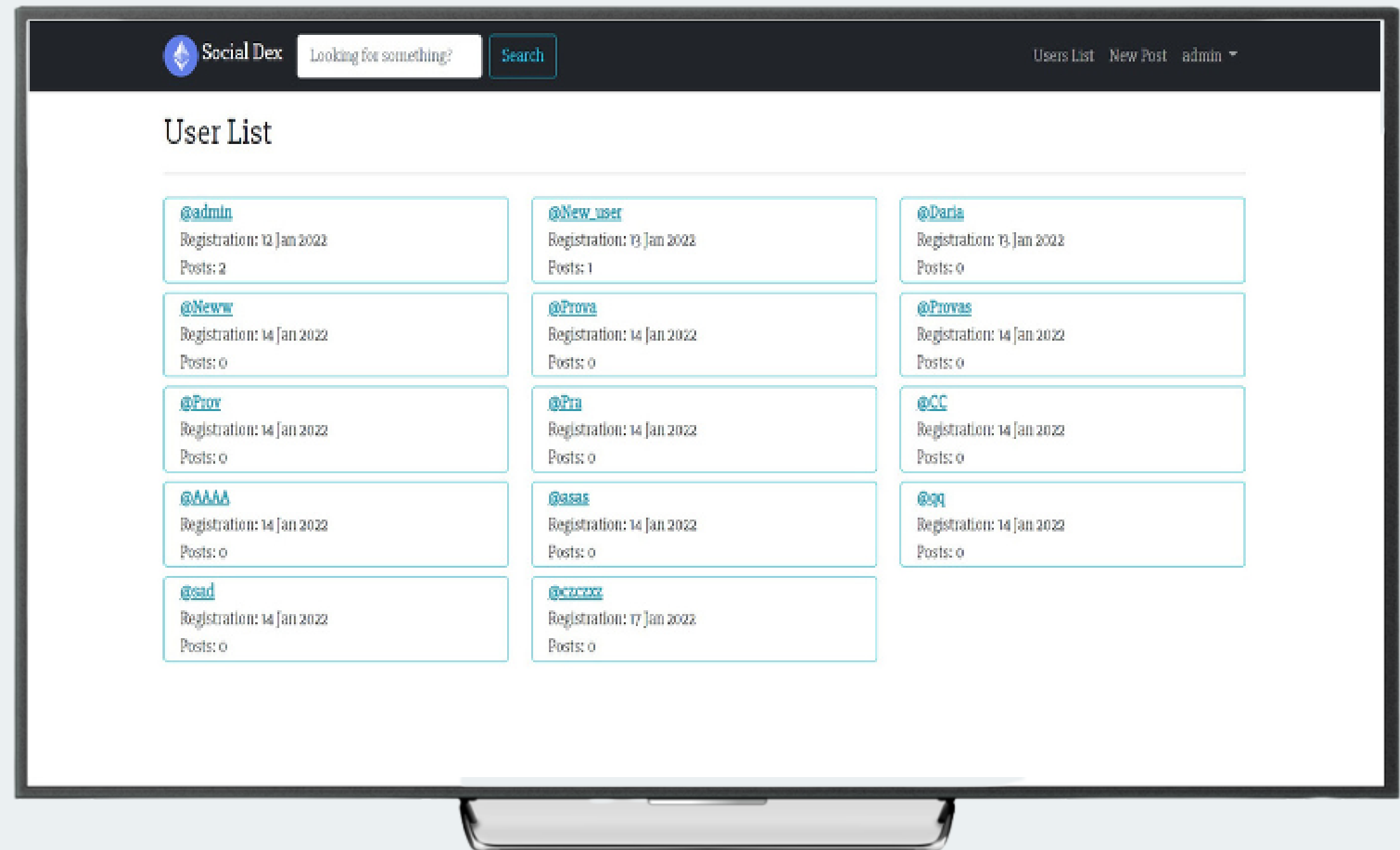
- The user profile page is accessible from the menu of the base template, and from the homepage by clicking on the username or profile image of a post.
- The page displays personal information and the titles of posts written by the user.
- If the profile the user is viewing is his personal profile, then the user can edit his own data, including the profile image.



# USER INTERFACE

## USER LIST

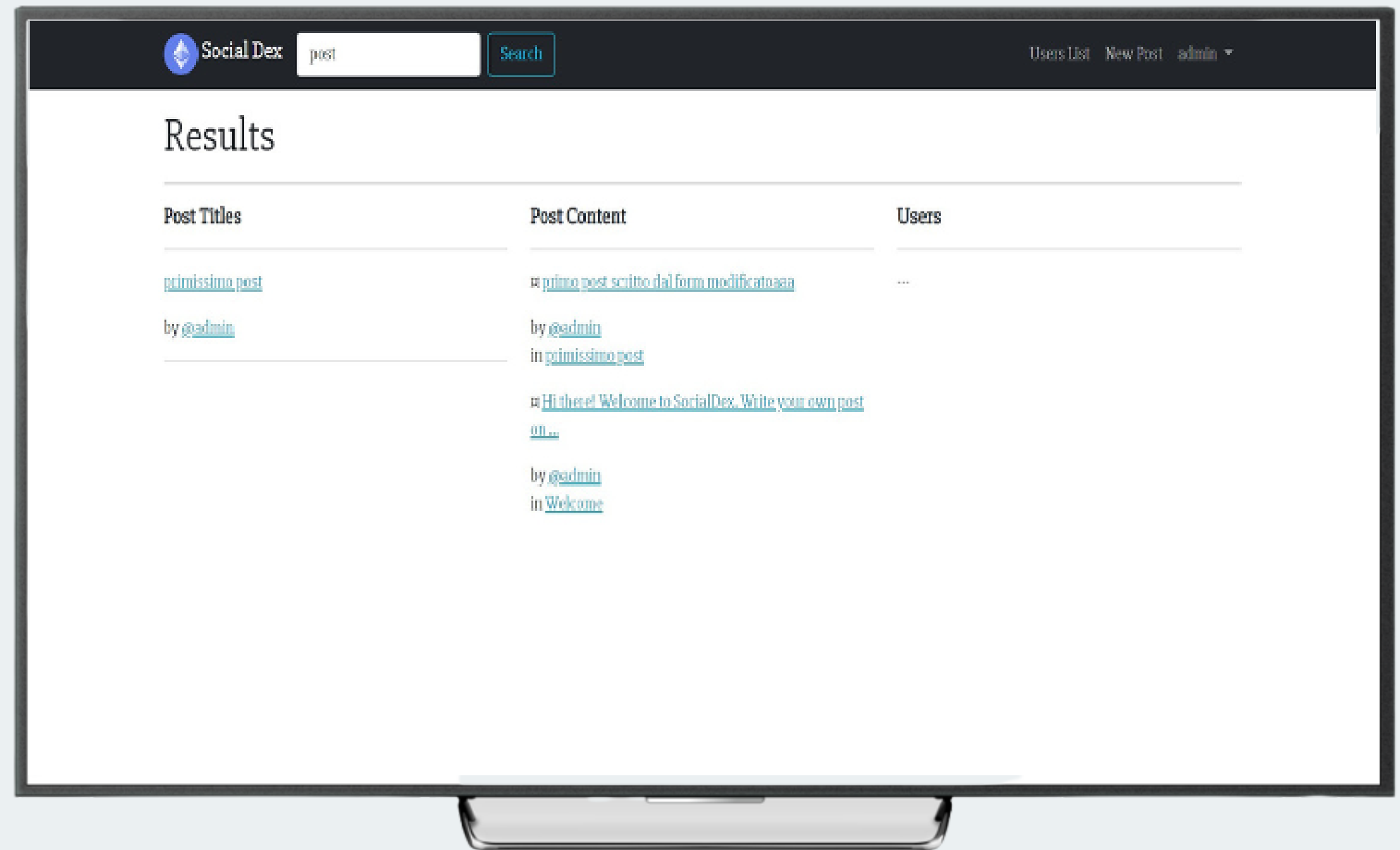
- The user list page is only visible and accessible from the menu of the base template for users who are members of the staff.
- This page lists all registered users on the site, their username, date of registration and number of posts.
- Clicking on the username redirects you to the profile page of that particular user.



# USER INTERFACE

## SEARCH

- The search function is available from the menu of the basic template.
- By typing a word into the search bar, it is searched for in the titles and contents of posts, and in the usernames of users.





# ENDPOINTAPI

## Return JSON dei posts

### **POST/ POSTS24**

Returns all  
posts written by  
users in the last  
hour.

The format in  
which the data is  
returned is JSON.

### **POST/ POSTS**

Return all  
posts written by  
users.

The format in  
which the data is  
returned is JSON.



# CONCLUSIONS

## this is what I learned

- Implementing the SocialDex project was a real challenge: I could only study and work on its implementation in my spare time, but it was always done with great enthusiasm!
- Before this path, I did not know Python or Django, and building a web app from scratch gave me the opportunity (in addition to learning) to let the concepts I had covered settle.
- In working on SocialDex, I have decided to focus more on the Backend part (the subject of this guide); while the Frontend part, although present, will certainly be improved in the future as I still have to tackle the study of Bootstrap in detail.

**I am satisfied with what we have achieved with SocialDex,  
but this is only the first of many training projects!**

GOALS

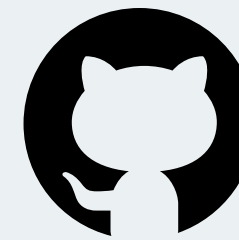
- 1.
- 2.
- 3.

# CONCLUSIONS

this is what I learned

## TECHNICAL SKILLS ACQUIRED

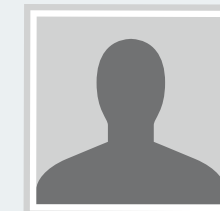
- knowledge and use of Python
- knowledge and use of Django
- knowledge and use of blockchain technologies
- designing and writing a web application from scratch
- Git versioning system and code hosting on GitHub
- deploy a web application on PythonAnywhere



Source code on GitHub



Demo Live SocialDex  
on PythonAnywhere



Start2Impact Profile



Linkedin Profile