**Collaborative Drawing and Shared Experiences Remotely**

**Project name : PuzzLink**

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**Background**  
PuzzLink was created to offer a unique space for collaboration and creativity in the digital world. The platform blends puzzle-solving, real-time communication, and creative expression, allowing users to work together seamlessly. It was designed to overcome the limitations of traditional virtual interaction by enabling users to collaborate on a shared, interactive space. PuzzLink focuses on fostering connection and communication, whether for couples, friends, or colleagues. The platform offers a dynamic way for people to create and engage together, regardless of physical distance.  
  
**Vision:**  
To redefine virtual interaction by combining creative collaboration and real-time communication, creating an engaging platform that fosters authentic connections.

**Goal:**  
To provide an intuitive app that enables users to collaborate on interactive, shared puzzles, while building meaningful relationships through creative experiences.

**Objectives**:

1. Develop an intuitive platform that allows users to engage in creative, collaborative puzzle-solving while connecting with others in real-time.
   * Users will have the ability to color the interactive whiteboard used in puzzles, allowing for more dynamic and personalized creative expression. The board will serve as a versatile canvas for users to add their contributions and collaborate visually.
   * The platform will include private rooms where users can collaborate in a more intimate setting, ensuring a focused and private space for teams, friends, or couples to work together without external interruptions.
   * Users will have the option to save their final creations or share them with others. This feature ensures that users can keep a record of their collaborative work or easily share it with others through the platform or external social media channels.
   * A real-time chat feature will be integrated to allow seamless communication between users. This chat will be available in both private and public rooms, enhancing collaboration and engagement by enabling users to discuss ideas and solve puzzles together in real time.
2. Aggregate user-generated content into an interactive database, utilizing built-in tools to display and organize shared creations in an engaging and visually appealing way.

**Metrics:**

1. User Interactions: Tracking the number of collaborative sessions, puzzle creations, and user contributions can provide a metric for user engagement. This will help us understand how often users are participating, their level of involvement, and the value they find in contributing to the platform.
2. Puzzle Completion Rates: Monitoring how many puzzles are started and successfully completed by users can help us gauge the effectiveness of the platform in encouraging creativity and collaboration. It also offers insights into user behavior, such as which puzzle types or features are most popular.
3. Real-Time Chat Activity: Analyzing chat interactions during collaborative sessions will provide insights into how users communicate and collaborate on the platform. This can help us understand the level of engagement, identify popular discussion topics, and improve the chat experience for better interaction.
4. User Feedback and Satisfaction: Gathering feedback through surveys, ratings, and user reviews will allow us to assess user satisfaction. By identifying areas for improvement and measuring how users perceive the platform, we can continue to optimize the user experience and ensure PuzzLink meets their needs.

By leveraging these metrics, we can continuously improve PuzzLink, making data-driven decisions to enhance user engagement, refine platform features, and ensure the overall success of the platform.

**Literature Review**

Existing research on collaborative drawing and art highlights the potential of these platforms to foster deeper, more meaningful connections, moving beyond traditional methods of communication. Collaborative drawing, particularly in therapeutic contexts, has been identified as a valuable tool for couples to disengage from long, emotionally charged conversations characterized by pain, resentment, and blame. The focus in such therapy is not on the content of the imagery created by the partners, but on the dialogical exchange surrounding the drawings. This approach allows for the opening of new narratives and perspectives within the relationship, enabling space for reflection and understanding. In therapeutic settings, the therapist's role is to concentrate on the partners' interactions—particularly their hesitations and surprises—facilitating an environment where they can explore what is essential to their connection. This method, rooted in both extensive therapeutic experience and dialogical theory, has been central to previous studies on relational drawings [0].

The psychological benefits of collaborative drawing, and its potential to create shared, non-verbal spaces of communication, are well-documented. Previous studies, including those by Snir et al. (2023), explored how this form of creative expression can reduce emotional tension, enhance empathy, and foster communication between partners. In the therapeutic context, relational drawings allow couples to engage with one another in ways that traditional verbal communication may not facilitate, creating space for new emotional insights to emerge. When these principles are applied in virtual platforms, the potential for deep, meaningful interactions is significantly expanded, as the digital space removes the physical constraints of face-to-face communication, opening up opportunities for reflection, connection, and shared experiences beyond geographical boundaries [1].

One of the key psychological benefits of collaborative drawing in both therapeutic and digital contexts is the creation of a safe, non-verbal medium that encourages interaction rather than focusing on the content of the images themselves. This shifts the emphasis from product to process, allowing participants to reflect on their interactions with one another. Such an approach helps reduce stress and anxiety, promoting a sense of calm and trust within the collaboration. These findings are consistent with the therapeutic use of relational drawing, which serves as an alternative form of communication that enhances understanding and emotional intimacy between individuals. The collaborative nature of these activities not only fosters communication but also strengthens relationships, supporting the idea that creative collaboration can act as a tool for healing and personal growth in both personal and social contexts [0].

Technologically, platforms that adopt the principles of collaborative drawing often incorporate sophisticated communication tools, real-time interactivity, and dynamic user interfaces to facilitate collaboration. These technologies create a seamless user experience, making it possible for participants to interact in real time while working together on creative projects. The integration of chat features, interactive drawing boards, and shared puzzles allows for a rich and engaging collaborative experience, ensuring that the focus remains on the interaction rather than the specifics of the content itself. This technological implementation mirrors the goals of therapy, where the primary aim is not to focus on the content but to encourage reflection and interaction between participants. In this way, the technology used in such platforms helps recreate the reflective, dialogical space that is crucial in therapeutic settings, where communication is as much about the process as it is about the outcome [1].

Future research could further explore the psychological effects of collaborative digital art, especially in relation to stress reduction, emotional connection, and conflict resolution. The integration of gaming elements into creative platforms could offer additional insights into how play and creativity intersect to foster deeper, more engaging experiences. Additionally, exploring the use of digital platforms like collaborative drawing tools in cross-cultural communication could yield valuable insights into the universality of creative collaboration and its potential for building understanding across cultural boundaries. Furthermore, investigating how these platforms could serve therapeutic purposes, similar to relational drawings in therapy, would provide an important area for further exploration, as digital platforms hold the potential to offer alternative spaces for reflection and communication [0].

In conclusion, the intersection of psychological insights from collaborative drawing and innovative technology presents a unique opportunity to enhance virtual interactions. By emphasizing creative collaboration and reflective interaction, these platforms hold the potential to reshape how people connect and communicate online. They provide users with a space to engage meaningfully, reflect deeply, and strengthen relationships—similar to the therapeutic outcomes achieved through relational drawings. This approach has the potential to offer a powerful model for future social technologies, where the focus is on fostering deeper connections through shared creative experiences rather than superficial exchanges [1].

**References:**

1. Friedlander, S. R., Escudero, V., & Heatherington, L. (2009). Relational drawings in couple therapy. *Family Process, 48*(1), 117–133

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1. Löffler, S., Hoffmann, M., & Grau, I. (2023). Joint drawings as a tool for observing couple relationships: Development of the Couples’ Closeness-Distance Scale (CCDS). The Arts in Psychotherapy, 85, 101942

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