PocketSports Coaching App

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Introduction

- Coaching apps have evolved over the years
- Up and coming sports need bigger platforms
- Lots of apps only focus on one end of coaching (practice plans/drills, goal setting, etc...)
  - Increases the need for multiple apps per team
    - Florida Tech Men's Lacrosse uses 12+ apps
      - Teamworks, JustPlay, Hudl, Excel, etc...
- There are opportunities for improvements and innovation

Description of Current Systems

- JustPlay Sports Solutions
  - Expensive ($3750 annually)
  - Aimed at colleges and professional teams
  - Offer Multisport solutions (targeting larger users)
- LacrosseLabs
  - Lacrosse focused
  - Doesn't offer much beyond drill sketching and plan sharing
  - Not user friendly
- CoachThem app
  - Hockey focused
  - Good sketching area but not animated
  - Little to no evolution

Opportunities/Pains and Associated Trends (identifying problems to solve)

- Reduce need for multiple apps
- Fitting multiple sports on a single app
- Making it affordable for smaller teams/ communities
- Increasing limited competition for expansion/ market share

Initial Opportunities/Pains (Pains -> opportunities)

1. Cross-Sport App

2. Increasing App Functionality (Reducing need for several apps)

3. Small Market Competition / Affordability

Associated Trends (pains + trends -> better opportunities)

- Lacrosse is growing
  - Accepted into 2028 Los Angeles Olympics
  - 92 Countries across the world
- More coaches are turning towards technology
  - Need for smarter, automated technology

Feedback of Brad MacArthur on Opportunities/Pains

"I Agree. As an international team coach, the game is growing globally and domestically. Technology is being relied upon by more and more coaches. There are few cost effective options in the marketplace that deliver beyond abilities to sketch drills and develop practice plans"

Feedback of Michaela Gelbaugh on Opportunities/Pains

"Yes I agree that technology is needed to be more accessible for kids and for sports. Everyone is using it now. Apps are becoming more mainstream. It would be nice to have an app with more compatibility with apple and android. Having a centralized coaching app would be beneficial for the girls on our team." - Women's Assistant Basketball Coach

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Feedback of Jordan Willis on opportunities/Pains

1.Does the user agree/disagree with the opportunities/pains?

Yes, the volleyball coach agrees with the pains of having multiple apps for his sport when one app can combine all of the needed functionalities. He wants to easily understand what he has to do in the app and find the most efficient way to fill in the needed information. Also, he believes that the app can grow as well because there are limited apps that have the features coaches want.

2.If not, what are the opportunities/pains?

The volleyball coach also had a major concern about losing the human interaction with his team since technology would get rid of him creating meetings with his players.

Summary of User Feedback on Opportunities/Pains

	Opportunity /Pain 1	Opportunity /Pain 2	Opportunity /Pain 3	Suggestions
User 1	Broadens reach of users	Would like to have features consolidated on one app	Very Few options out there	• Make it user friendly • add different levels of use (some users want some features and not others) • keep it affordable
User 2	Players able to draft plays	Games/quiz to keep athletes focused	Compatibility between IOS and android	• Looking for it to be simplified • Players able to be more interactive • Decrease navigation time for coaches
User 3	Limits human interaction	Easy use of multifunctional apps	Elimination of multiple apps	• Needs to still have human interaction • Wants an efficient and easy to understand app • Wants one app for all needed functionalities

Proposed Opportunities/Pains

1. Be Cross-sport and have field for all sports and variations

2. Add team and coaching tool functionalities all in one place

3. Make it available/affordable for youth/recreational teams

Ideas to Create Value/Benefit: Core Features of the System
(Ideas for solving the problem—"how")

- Create field/court view for each sport
- Allow animated drill creation
- Create/execute practice plans
- Create team/individual goals

Initial Core Features of the System

1. Practice plans with play/drill/scenario creation

2. Team/individual goal display to help coaches ensure their goals are being met in practices

3. Multisport functionality

Types of Users

- Owner
- Coach
- Player
- Parent

What can each type of users do? The Owner

- Make a team
- Add players to a team
- Manage Coaches

*Owner can also be a coach

What can each type of users do? The Coach

- Have a sketch area with multiple different field views
  - Give way for multisport functionality
    - Different fields/courts
- Be able to build drills
  - Drills have tags (Shooting, footwork, etc...)
  - Animation feature
- Year planner
  - Dividing up team focus and goals throughout the year
    - Includes Graphics

*Coach can restrict parents from viewing things

- Create a practice plan
  - Pull from a drill bank
  - Attach media/photos
  - Contains a graphic report
    - Minutes
    - Practices
    - Drill Count
    - Drill type
  - Export to pdf, jpeg, png
  - Save, edit, load practice plans

What can each type of users do? The Players and Parents

- View practice plan
- View drills in practice plan with media
- View terms and concepts

Feedback on features from Brad MacArthur

1.Does the user agree/disagree that the features are an improvement and create value? Features would create value; increasing coach/player engagement, increasing time efficiencies for coaches. Flexibility in designing the practice plan improves the user experience and adds flexibility in design. Multisport integration could also boost cost effectiveness.

Feedback on features from Michaela Gelbaugh

"Yes the technology is advancing and it is functional. The features are an improvement. The increased player interaction and the features would give us more options then we usually would have. Compatibility between multiple sports would decrease technology struggles for coaches of different sports." - Women's Assistant Basketball Coach

Feedback on features from Jordan Willis

1.Does the user agree/disagree that the features are an improvement and create value?

Yes, the volleyball coach agrees that the features would help create efficiency and reduce the confusion of the multiple apps the team uses. The goals for the team are a great idea for his team to keep track of their educational and athletic side. However, he did say that practice plans and drills would not be useful for them.

2.If not, brainstorm for ideas

He instead suggested having a statistic section for volleyball since they focus on those rather than the practice plans and drills.

Summary of User Feedback on Features

	Feature 1	Feature 2	Feature 3	Suggestions
User 1	Essential feature to draw coaches into software	Goal setting is valuable. Feedback in real time and ability to view goals achieved/missed would provide transparency	Ability to scale across sports broadens scope and reach	• An offline mode adds benefits to coaches who travel • Ability to see drill reports (times used, minutes spent) filtered using season and dates • UI has to be clean, easy to use
User 2	Digitized practice plans would be helpful	feature that has goals and feedback from coaches would be beneficial	Multisport would be very useful as it can be adapted	• Try to make the app function on most platforms • Limit the number of bugs that occur • Make all the modules easy to understand and use
User 3	Wants stats instead of practice plans for games and practices	Setting goals is great for long and short term	Wants one app to eliminate the work of multiple apps	• Does not want app to limit human interaction • Create an alumni page • Set reminders for goals every day for both education and team

Proposed Core Features of the System

1. Ability to view players current performance
   - View & upload current player stats / weights
   - Ground balls, shots, goals, turnovers / squat, bench, Deadlift
2. Ability to create and track goals for both individuals and team
   - view in charts/graphs how they are being met
   - Ex: Certain players squats increase to 315 and its currently 275
   - Ex: We want Passing at 100% efficiency, but currently is at 75% due to not doing passing drills recently in practice

Proposed Core Features

3. Ability to create a practice plan

- Draw plays/drills with animation feature; drag onto a practice plan with drill tags (ground balls, shooting, passing, etc.)
- Can send plan to players or parents (email, notification, etc.)

4. Execute a practice plan

- Can switch between drills on plan (keeps track of time on each drill)
- Can add stats from each drill for players

Proposed Core features for Each User Type

Feature	Coach	Player
Current Performance	• View and add data for player • Can view how it matches up with goals	• View data based off past and rest of team if coach allows
Goals	• Sets goals for players and team	• Can add goals if coach allows
Practice Plan	• Create/edit/save individual drills and practice plans • Drag drills from a database to create a practice plan • Save old practice plans to a database for retrieval and reference • Can load and edit old plan for efficiency • Share with players with levels of access(edit/view) • Selects relevant stats for each drill to keep track of	• View completed plan • Mark areas for discussion • Add their own notes
Plan Execution and tracking	• Coach selects "start practice" • Practice timer starts; first drill timer starts as well to time the duration. • Can jump to "next drill" or skip around for a flexible practice • The start and end time of the drills are saved/recorded • Add individualized/team stats in real time	• View results/stats after coach finishes practice • Can mark lacking areas

Tools (languages, libraries, packages) that can help with the core features

- Web Application
  - Ability to view players current performance
    - React & Chart.js for displaying performance data
    - Node.js with express to handle backend
    - MongoDB database
- Ability to create and track goals for both individuals and team
    - MongoDB database to store all the goals
    - Schema to format data
    - Post request data from frontend
  - Ability to create a practice plan
    - Utilization of web sockets in order to create plans
    - Web sockets are used to create collaborative tools
    - WS package to install
  - Ability to execute a practice plan
    - React for frontend
    - Node.js with express to handle backend
    - MongoDB for database
    - Web application(website only)

Potential technical challenges of the core features

- Ability to view players current performance
  - Ensuring updates to database when possible for offline modes
- Ability to create and track goals for both individuals and team
  - Graphically pleasing charts
- Ability to create a practice plan
  - Custom play/practice plan creation from different users
  - Saving previous plays to continue working on it at a later time
- Ability to execute a practice plan
  - Keeping track of time
  - Saving and updating database when coming back online

3 out of 4 members have taken web applications with Fitzroy Nembhard.

3 out of 4 members have had internships that utilizes web applications (websites)