



Enhancing cricket viewing experience on a mobile phone

Design Degree Project (Stage II)

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About the Project

The aim of this project is to design a cricket application on a mobile phone that enhances cricket viewing experience of a person.

The application is aimed at people:

- Who watch cricket
- Who have access to mediums to watch cricket
- Who are at work/ away from home

Need of the Project

Aim of the Project:

The aim of this project is to design a cricket application **on a mobile phone** that **enhances cricket viewing experience** of a person.

Why Enhance?

The widely followed existing medium for watching cricket is TV and whatever is shown is purely base on *editors choice* from stats to Advertisements

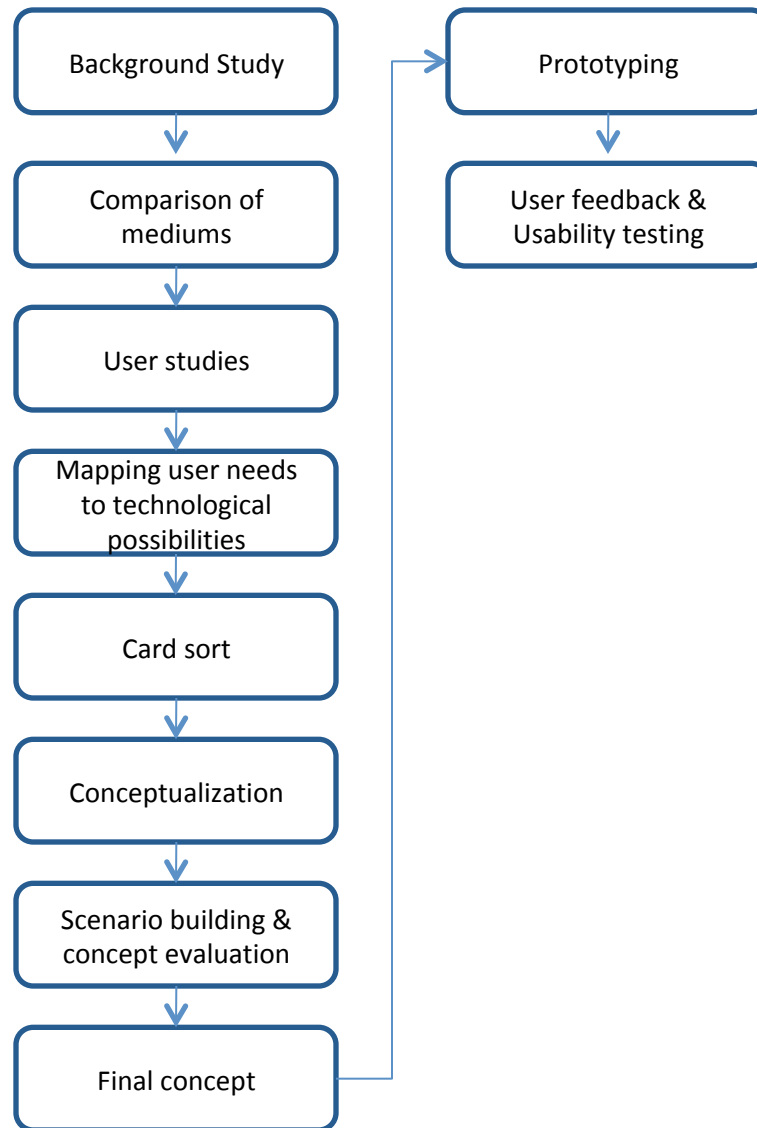
The widely reachable medium like Internet majorly displays *only static information*, ironically being a medium that uses the wide possibilities of computing power

Why Mobile Phone?

Usually cricket matches take place when people go to work and there is a high probability for them that they cant view it at home.

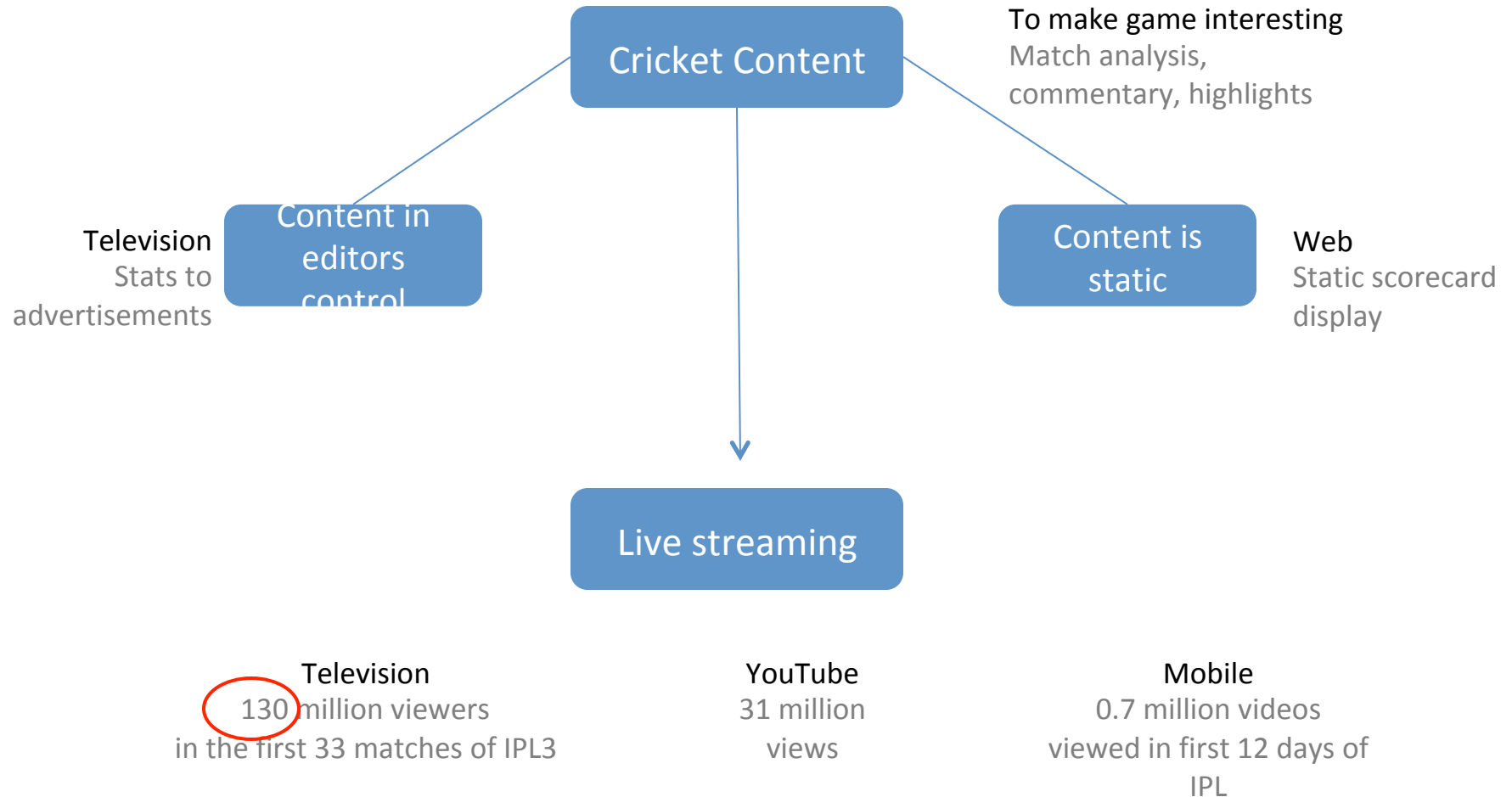
For cricket being a sport, it is much more fun when people are connected/ together while watching the game

Methodology



Background study

Background study



Background study

Scheduling



Mobile Phone as a medium



3G as technology

Asia Cup (Jun 15 - Jun 24, 2010)

Match	Venue	Date	Match Time
1st Match - SL v Pak (D/n)	Rangiri Dambulla International Stadium	Jun 15, 2010	02.30 Pm
2nd Match - Ban v Ind (D/n)	Rangiri Dambulla International Stadium	Jun 16, 2010	02.30 Pm
3rd Match - SL v Ban (D/n)	Rangiri Dambulla International Stadium	Jun 18, 2010	02.30 Pm
4th Match - Ind v Pak (D/n)	Rangiri Dambulla International Stadium	Jun 19, 2010	02.30 Pm
5th Match - Ban v Pak (D/n)	Rangiri Dambulla International Stadium	Jun 21, 2010	02.30 Pm
6th Match - SL v Ind (D/n)	Rangiri Dambulla International Stadium	Jun 22, 2010	02.30 Pm
Final - TBC v TBC (D/n)	Rangiri Dambulla International Stadium	Jun 24, 2010	02.30 Pm

1. Easy access anywhere
2. Overall rich experience
3. Staying in touch
4. Good reach in India

Mobile phone reach in India is set to reach around 737 million by 2012. It is estimated that India already has more number of mobile phones (around 545 million) than toilets (around 366 million) according to the UN.

1. Live Streaming
2. Better Quality
3. Video Conferencing
4. Good Growth in India

3G enabled mobile phones reach in India is set to reach around 30 million by 2012. Considering that research on 4G is already underway, mobile phones of the future will be providing a rich multimedia experience.

Background study

Interestingness in the content

Importance/ Significance

Sachin Tendulkar hits his 45th test century.

Unexpectedness

A bowler coming in and scoring a 50 in quick time.

Neighbourhood

How well can India fare in a seaming track?

Thresholds

1) Individual

Scoring a 100 is as significant as scoring 149

2) Context Dependant

No one has scored more than 80 against NZ in NZ

3) Poor Performance

Sehwag holds record of maximum ducks against OZ

Anticipation

Can Sehwag score a hundred at least this time with him getting out on 90's for past 3 tests?

Relative Significance

How is performance of one player significantly better than another player in a match

Opportunity for significance

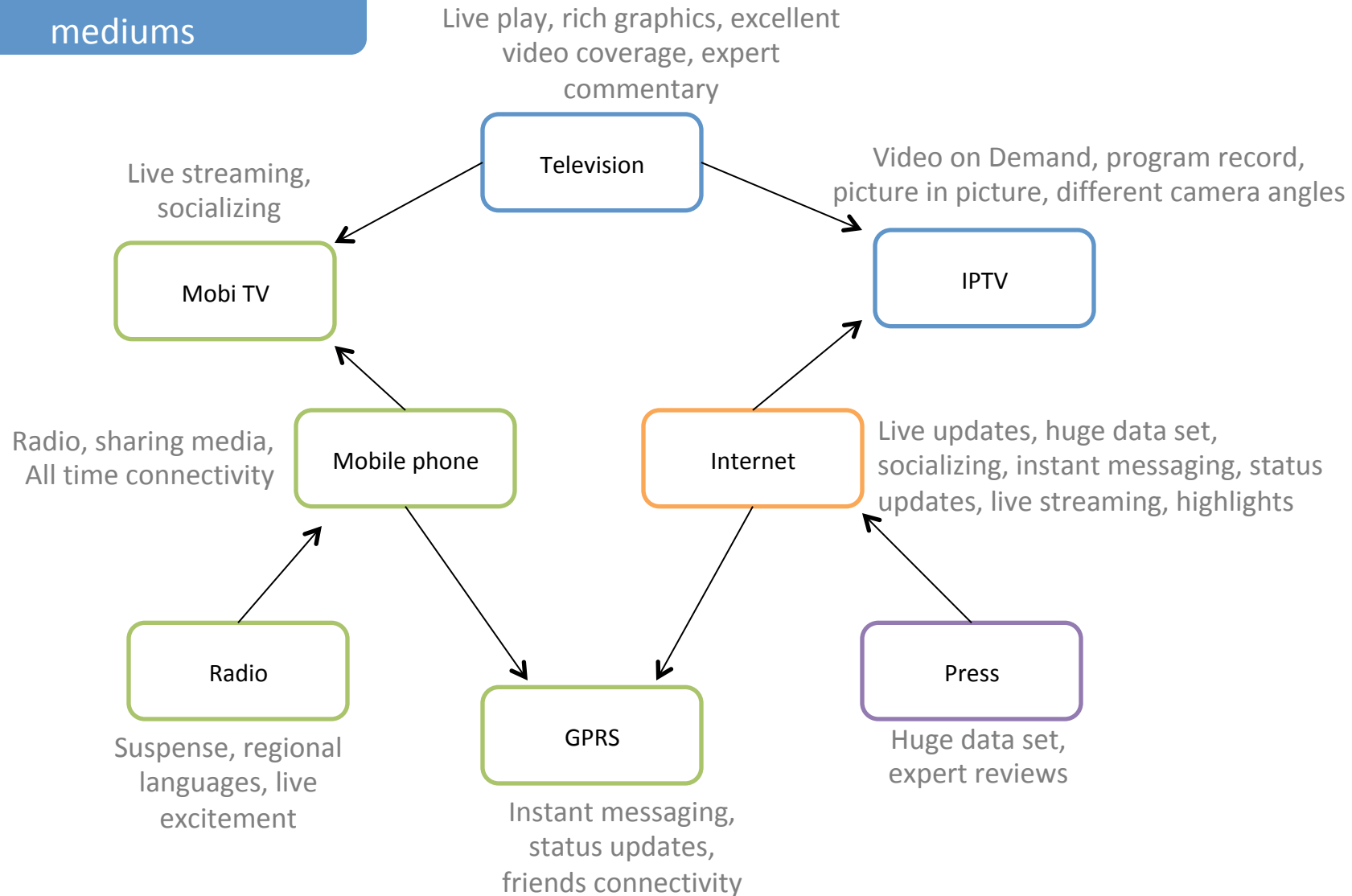
Can Mishra take one more wicket to equal record with six wickets of opponents left?

Closeness of a record being broken

Sehwag is not out on 393 and in good form.

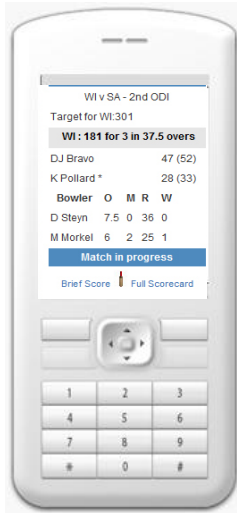
Background study

Benefits of different mediums



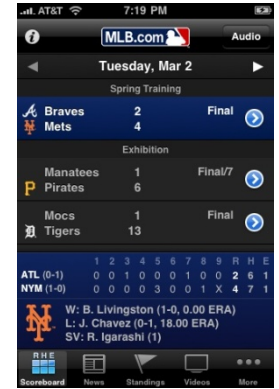
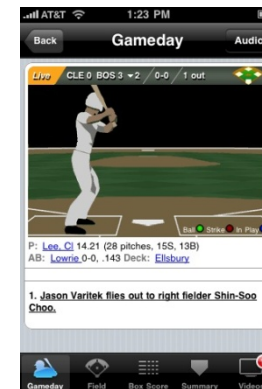
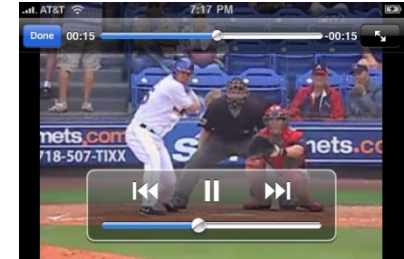
Background study

Existing products



- (-) Lacked in details
- (-) Graphs never were visually appealing
- (-) Big Long scorecards

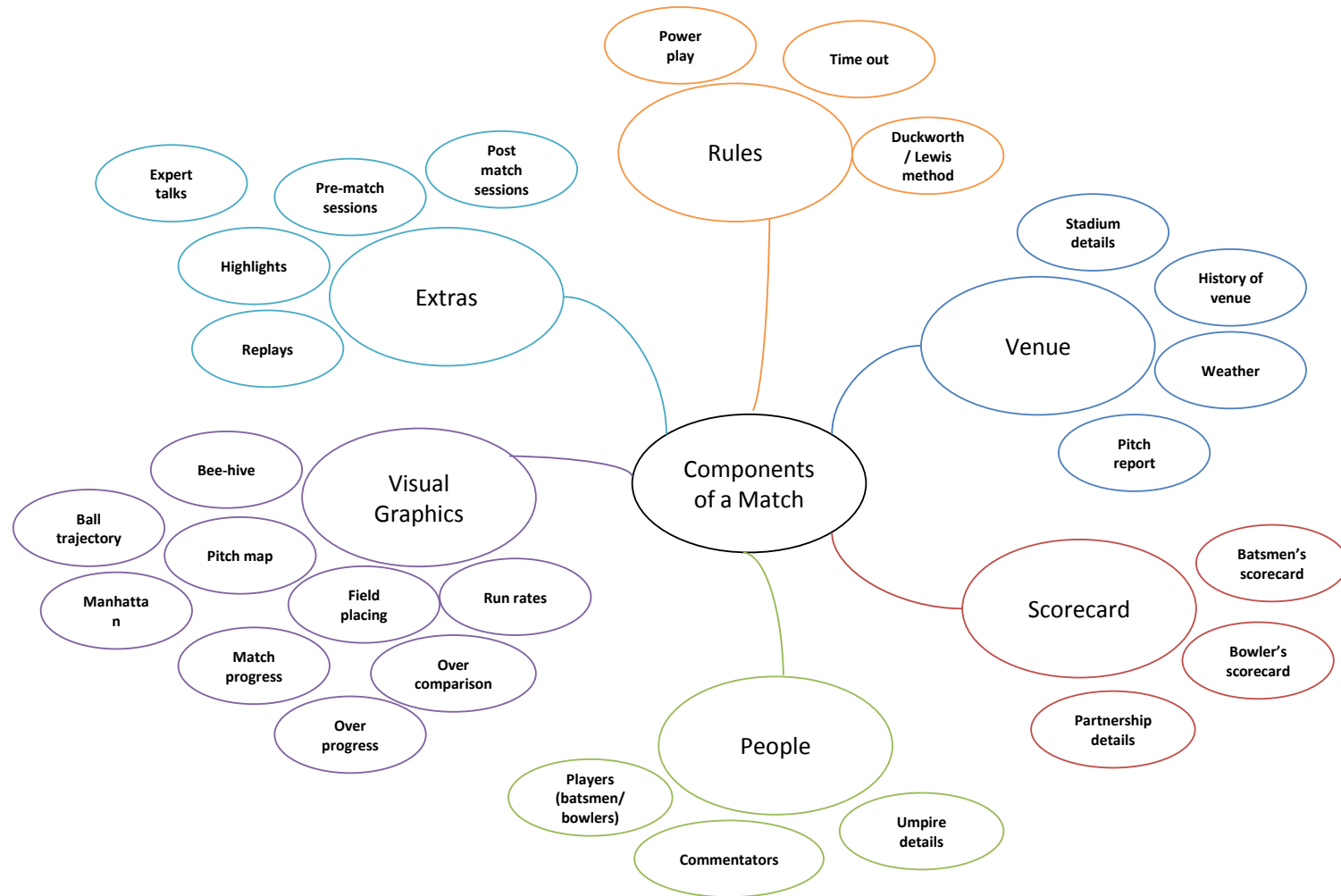
- (-) Loads of textual data
- (-) Increase in sophistication with features
- (-) Many dynamic advertisements
- (+) Huge data set of information
- (+) Instant updates



- (-) Doesn't show how the match progressed
- (-) Many features are deep inside (navigation Issues)
- (+) Simulation of the game available
- (+) Latest news streamed with alerts



Research



Information

Contextual

Replay of a wicket

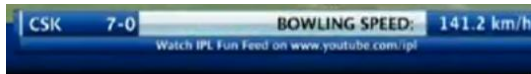
Factual

e.g. Sachin scored his 46th century

Fillers

Extras, talks, interviews

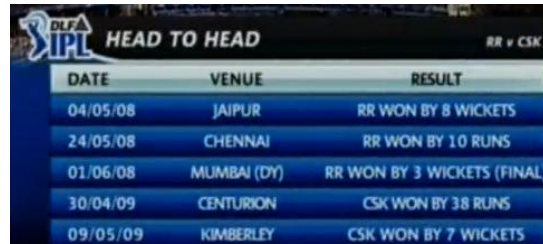
One line Information



CSK	7-0	BOWLING SPEED:	141.2 km/h
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Watch IPL Fun Feed on www.youtube.com/ipl

Box Information



DATE	VENUE	RESULT
04/05/08	JAIPUR	RR WON BY 8 WICKETS
24/05/08	CHENNAI	RR WON BY 10 RUNS
01/06/08	MUMBAI (DY)	RR WON BY 3 WICKETS (FINAL)
30/04/09	CENTURION	CSK WON BY 38 RUNS
09/05/09	KIMBERLEY	CSK WON BY 7 WICKETS

Full page Information



RAJASTHAN ROYALS		
DLF IPL 2010 - MATCH 24		
	MATCHES	AGE
Michael LUMB	5	30
Naman OJHA	15	26
Faiz FAZAL	4	24
Yusuf PATHAN	36	25
Abhishek JHUNJHUNWALA	7	27
Adam VOGES	4	30
Paras DOGRA	7	25
Shane WARNE (c)	35	40
Sumit NARWAL	3	27
Siddharth TRIVEDI	27	27
Shaun TAIT	6	27

Classification of Information

One line information

Match Details
Toss Details
Bowl Speed
Stadium Details
Over Summary
Umpire Details
Extras Information
Score with runs and overs
Boundaries Information
Score with Run rate
Commentator's details
Interesting Information
Balls Since Last Boundary
Last 5 over's summary
Projected Score
Score with runs required
Score with Target
Ball Speeds of a bowler
Distance of six hit
Score with required run rate

Box information

Player stats in the tournament
Player Profile (Batsmen/Bowler)
Player stats in the [Test/ODI/T20] format
Player stats in the match
Player information after fall of wicket
Fall Of Wicket (FOW) details
Brief Match Summary
Leading run scorers in the tournament
Surveys
Partnership Details
Team standings
Fair Play Award Standings

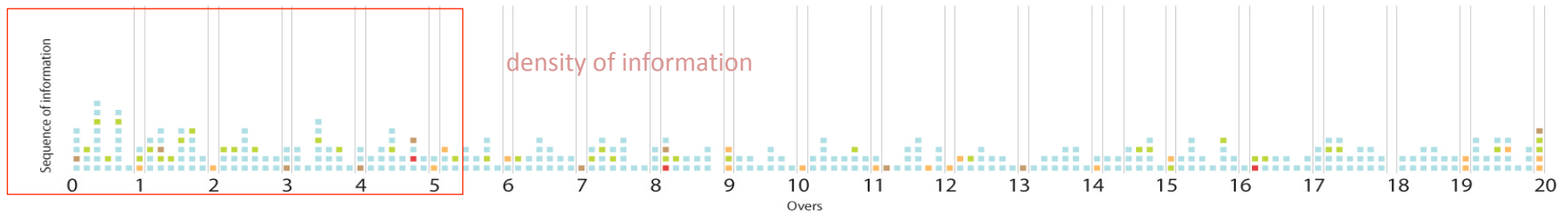
Full screen information

Replay of wicket
Replay of 4's & 6's
Replay of chances
Advertisement
Main scorecard - Batting
Main scorecard - Bowling
Over Replay
Team's inning's summary
Wagon Wheel
Commentator Reports [toss, pitch]
Big screen Animated Displays
Manhattan
Trajectory Replay
Wicket's highlights
Boundaries highlights
Player's highlights
Pitch Map
After Match Player Interviews
Quick Highlights
Awards Presentation
Catches Highlights
Fun Feed
Special Moments

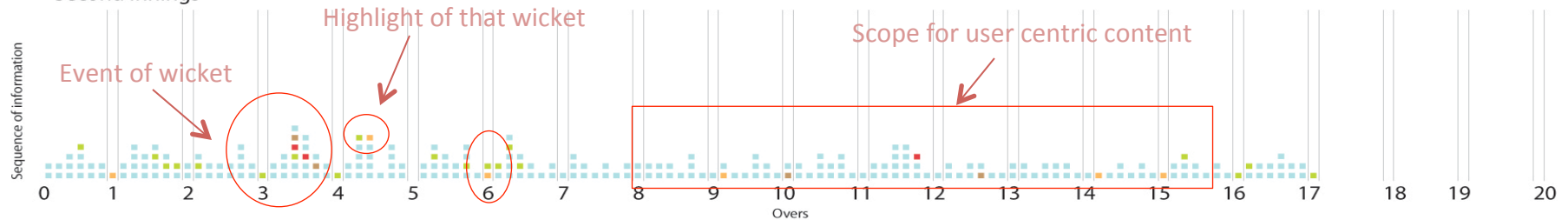
Pattern of Information

Rajasthan Royals Vs Chennai Super Kings

First Innings



Second Innings



Main batting scorecard

- Full - screen Information
- Replays / Highlights
- Event of a wicket
- Half - screen Information
- One Line Information
- || Interval between overs

	MATCHES	AGE
Michael LUMB	5	30
Naman OJHA	15	26
Faiz FAZAL	4	24
Yusuf PATHAN	36	25
Abhishek JHUNJHUNWALA	7	27
Adam VOGES	4	30
Paras DOGRA	7	25
Shane WARNE (c)	35	40
Sumit NARWAL	3	27
Siddharth TRIVEDI	27	27
Shaun TAIT	6	27

BALLS	FOURS	SIXES	S/RATE	MINUTES
29	3	3	172.4	33

CSK 28-0	LAST SIX DISTANCE HIT - 86m
Watch IPL Fan Feed on www.youtube.com/ipl	

Research

The user's choice of information

Likes and dislikes

Frequency of information

Relevant/irrelevant

Different mediums used in different scenarios

At home

In office

On the move

Choice of medium

Socializing aspect of the game

Watch alone/ in a group

Share stories?



No. Of Users: 9 [Elderly: 3, Office going: 3, Students: 3]

Among the users: Male: 6, Female: 3

Among the users: Cricket geek: 3

Watches cricket regularly: 4

Watches cricket occasionally: 2

Research

Cricket Graphics

Context specific graphics

Excitement Builder

Audio commentary builds excitement

User Control

- Advertisements are an unwanted distraction although some feel it as a necessary break
- Users want to see the context specific information when they desire to see it

Socializing

Like to listen to stories, view points, facts etc.

Personalization

Specific interest on the different kinds of information being shown

Want Regular Updates

Ready to send SMS, ready to stand in a crowded showroom

Adapt to new mediums

Download new cricket applications

Creating an avatar, having a star icon

On the move

Users do not want to miss matches being stuck up in traffic or when having a long day at the office.

Record and replay

Users do not want to miss out on any action of the match while doing multi tasking.

Match history at a glance

Understand the summary of the match at one go

Share experiences

Like to share stadium experiences, meeting cricket stars etc. along with his family and friends

Design Brief

Design Brief

The aim of the project is to develop a mobile interface that enhances the current cricket viewing experience for the viewers viewing on a mobile phone.

Essential Parameters:

1. The mobile interface must be easy to use for a user on the move.
2. It must be intuitive enough for the user to understand the match summary in a jiffy.

Desirable Parameters:

1. It must be able to provide user the control to view what information he wants to see intuitively and easily.
2. Options provided in the interface must be personalized to the user's needs and requirements.
3. The application must bring about the feeling of togetherness with friends/family while watching a cricket match.

Incentives:

1. The features applicable to the mobile interface can also be synched with the user's computer for him to provide additional options for viewing the game.

Initial Concepts

Initial concepts

Match Meter

To indicate which team has the upper hand

Different interactive visuals

To indicate strengths of the team like 4 out of 5 bats



Match Summary



Profile Page

Current page

Quickies

Based on user's preference
Based on habits

Quickie

Initial concepts



Radio Mode
Can browse through options using his mobile headset

Different Modes
Rich experience

Radio mode



Instant Tweeting
Update status

Pop ups
Glow when a friends status is updated

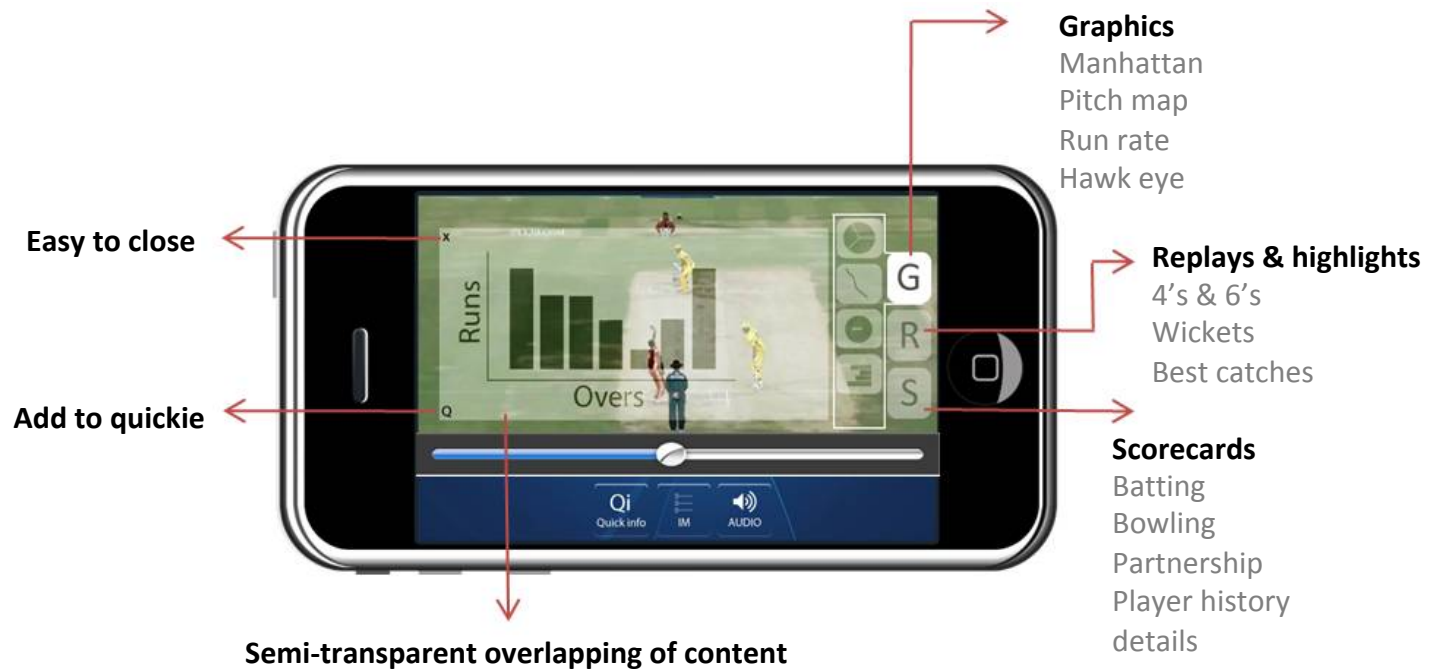
Instant tweeting

Initial concepts



Time Line | Video mode

Initial concepts



Semi transparent overlay display

Initial concepts

Close and carry on
with the game



Sharing of media
Pictures
Videos

Leading to final concept

Leading to final concept

Prioritization

How users prioritize what they want to see given a scenario

Categorization

How users categorize the different contents they usually see during a cricket match

Card sort



8 users

55 different cards

3 kinds of users

Cricket Savvy (Who follow even domestic cricket frequently) - 2

Those who watch international cricket regularly - 4

Those who do not watch cricket so regularly - 2

Leading to final concept

Sno.	Key words	Sno.	Keywords
1	Match Details	28	Interesting Information
2	Player Profile (Batsmen/Bowler)	29	Balls Since Last Boundary
3	Toss Details	30	Last 5 overs summary
4	Bowl Speed	31	Wagon Wheel
5	Replay of wicket	32	Commentator Reports [toss, pitch, sideline]
6	Replay of 4's & 6's	33	Surveys
7	Replay of chances	34	Bigscreen Animated Displays
8	Stadium Details	35	Manhattan
9	Over Summary	36	Trajectory Replay
10	Player stats in the tournament	37	Partnership Details
11	Umpire Details	38	Projected Score
12	Extras Information	39	Wicket's highlights
13	Score with runs and overs	40	Boundaries highlights
14	Advertisement	41	Player's highlights
15	Player stats in the [Test/odi/T20] format	42	Pitch Map
16	Main scorecard - Batting	43	After Match Player Interviews
17	Main scorecard - Bowling	44	Score with runs required
18	Player stats in the match	45	Quick Highlights
19	Player information after fall of wicket	46	Score with Target
20	Boundaries Information	47	Ball Speeds of a bowler
21	Fall Of Wicket (FOW) details	48	Distance of six hit
22	Brief Match Summary	49	Score with required run rate
23	Scorecard with Run rate	50	Fair Play Award Standings [team standings]
24	Comentator's details	51	Awards Presentation
25	Over Replay	52	Catches Highlights
26	Team's inning's summary	53	Fun Feed
27	Leading Run scorers/ Wicket Takers in the tournament	54	Team standings in a tournament
		55	Special Moments

Leading to final concept

Very Significant								
U1	U2	U3	U4	U5	U6	U7	U8	
1,5	1, 6	2, 5, 6, 9	1, 5	1, 8	1, 3, 8, 9		6	1, 6
13, 16	13, 16, 17	19	16, 18	10, 13	13, 16, 18	16, 17, 19	13	13, 16,
23, 26, 28	23, 26	22, 23, 26, 28	20, 22, 26	22, 24, 26	21, 22, 23, 28	23	20, 21, 22, 23	22, 23, 26
31	30, 34, 38, 39	36, 37, 39			30, 31, 32, 35, 37, 38		30	
45, 49	44, 46, 49	40, 41, 45, 49	40, 44, 45, 46, 47, 49		42, 44, 46, 48, 49	44, 45, 46	44, 46	44, 45, 46, 49
		50, 51, 52, 55	52					

1 Match Details

6 Replay of 4's & 6's

13 Score with runs and overs

16 Main scorecard - Batting

22 Brief Match Summary

23 Scorecard with Run rate

26 Team's inning's summary

44 Score with runs required

45 Quick Highlights

46 Score with Target

49 Score with required run rate

Order of preference

1. Match Details
2. Scorecards
3. Match summary
4. Highlights

Leading to final concept

Significant

U1	U2	U3	U4	U5	U6	U7	U8	
2,5,7	2, 3, 5, 7, 9	1, 7	2, 4, 7, 8, 9	2, 3, 4, 5, 6, 9	2, 5	2, 6, 7, 9	1, 5	2, 5, 7, 9
10,15,18,19	10, 18	10, 18	10, 12, 13, 15, 17, 19	11, 12, 14, 15, 16, 17, 18, 19	10, 15, 17, 19	13, 18	17	10, 17, 18, 19
21,24,27,29	21, 22, 25, 29	21, 27	21, 23, 24, 25, 28, 29	20, 21, 23, 25	20, 25, 29	29		21, 25, 29
30,35,36,39	31, 32, 35, 37	30, 31, 35	30, 32, 35, 36, 37, 38, 39	30, 31, 34, 35, 36, 37, 39	33	30, 35, 36, 37	38, 39	30, 31, 35, 36, 37, 38, 39
40, 48, 41	40, 45, 48	42, 43, 44, 46	41, 43, 48	40, 42, 43, 45, 46, 47, 48	40	40, 41, 49	40, 45, 48, 49	40, 48
51,52,54	52, 55		51, 55	51, 52, 53	50, 52	50, 52, 55	51, 55	51, 52, 55

2	Player Profile (Batsmen/Bowler)	25	Over Replay	40	Boundaries highlights
5	Replay of wicket	29	Balls Since Last Boundary	48	Distance of six hit
7	Replay of chances	30	Last 5 overs summary	51	Awards Presentation
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10	Player stats in the tournament	35	Manhattan	55	Special Moments
17	Main scorecard - Bowling	36	Trajectory Replay		
18	Player stats in the match	37	Partnership Details		
19	Player information after fall of wicket	38	Projected Score		
21	Fall Of Wicket (FOW) details	39	Wicket's highlights		

Insignificant

U1	U2	U3	U4	U5	U6	U7	U8	
3,4,8,9	4, 8	3, 4, 8	3	7	4, 6, 7	1, 3, 4, 5, 8	2, 3, 4, 7, 8, 9	3, 4, 8
11,12,14,17	11, 12, 14, 15, 19	11, 12, 13, 14, 15, 16, 17	11, 14		11, 12, 14	10, 11, 12, 14, 15	10, 11, 12, 14, 15, 16, 18, 19	11, 12, 14, 15
22,25	20, 24, 27, 28	20, 24, 25, 29	27	27, 28, 29	24, 26, 27	20, 21, 22, 24, 25, 26, 27, 28	24, 25, 26, 27, 28, 29	20, 24, 27, 28
32,34,37	33, 36	32, 33, 34, 38	31, 33, 34	32, 33, 38	34, 39	31, 32, 33, 34, 38, 39	31, 32, 33, 34, 35, 36, 37	32, 33, 34
42,43,44,46,47	41, 42, 43, 47	47, 48	42	41, 44, 49	41, 43, 45, 47	42, 43, 48	41, 42, 43, 47	41, 42, 43, 47
50,53,55	50, 51, 53, 54	53, 54	50, 53, 54	54, 55	51, 53, 54, 55	51, 53, 54	50, 52, 53, 54	50, 53, 54,

3	Toss Details	28	Interesting Information
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15	Player stats in the [Test/odi/T20] format	43	After Match Player Interviews
20	Boundaries Information	47	Ball Speeds of a bowler
24	Commentator's details	50	Fair Play Award Standings [team standings]
27	scorers in the tournament	53	Fun Feed
		54	Team standings in a tournament

1. Replays
2. Player statistics and details
3. Cricket graphics
4. Match statistics (Fall of wicket, last 5 over's summary etc.)

1. Pre-match details
2. Post-match details
3. Fun feed
4. Extra information (commentator's details etc.)

Leading to final concept

one line Score	Score	Score/ Timeline	Dynamic Match info	Current State	Batting stats	Current details
				1, 2, 4, 9		1
13	12, 13, 16, 17		13, 16, 17	13, 19	16	13
23	20, 29	23	20, 21, 23, 29	23, 27, 28, 29	23	20, 23, 29
	35, 38	35	35, 37, 38	32, 34		35
44, 46, 49	44, 46, 49	44, 46, 49	44, 46, 49	44, 46, 49	44, 48, 49	46
52				54		

13 Score with runs and overs
 16 Main scorecard - Batting
 23 Scorecard with Run rate
 29 Balls Since Last Boundary
 20 Boundaries Information

35 Manhattan
 44 Score with runs required
 46 Score with Target
 49 Score with required run rate

Highlights	Highlights	Highlights	Highlights	Replays & Highlights	Replays & Highlights	Replays	Boundaries
5, 6, 7	5, 7	7	5, 6, 7	5, 6, 7	5, 7	5, 6	6
25	25		21, 27		21, 25	25	20, 29
30, 39	31	39	36, 39	39	36, 39	36	
40, 45	40, 41, 45	40, 45	40, 45	40, 41, 45	41, 45, 48		40
52	52	52	52	52			

5 Replay of wicket
 6 Replay of 4's & 6's
 7 Replay of chances
 25 Over Replay
 36 Trajectory Replay

39 Wicket's highlights
 40 Boundaries highlights
 41 Player's highlights
 45 Quick Highlights
 52 Catches Highlights

Current Score

Player info in match	Bowling stats	Bowling stats	Player Profile	Player Summary	Player Summary	Individual Summary	Detailed info	Detailed Info.
	4, 9	4, 9	2	2	2	2, 4, 9	2, 4	
18, 19		17	10, 15	10, 15, 17, 18, 19	18, 19	10, 15, 18, 19	10, 15, 18, 19	10, 12, 15, 16, 17, 18
		21, 25, 29						20, 21, 22, 26
31		36				31, 36		30, 31, 35, 36, 37, 38
	42, 47	47	41			41, 42, 47, 48	43, 47	42, 47, 48
							54	

2 Player Profile (Batsmen/Bowler)
 4 Bowl Speed
 9 Over Summary
 10 Player stats in the tournament
 15 Player stats in the [Test/odi/T20] format
 17 Main scorecard - Bowling
 21 Fall Of Wicket (FOW) details

18 Player stats in the match
 19 Player information after fall of wicket
 31 Wagon Wheel
 36 Trajectory Replay
 42 Pitch Map
 47 Ball Speeds of a bowler
 48 Distance of six hit

Replays and Highlights

Player profile

Leading to final concept

Feeds	Feeds	Feeds	Special Moments	Other info	Extra Info	Extra Info	Frills	Unrequired	Extras	Talks	Talks	After Match	After Match	Post Match details
				3, 8	4, 8			3, 8						8
	14	14		11, 14	11, 12, 14	12	12, 14	11	12		11			11, 12, 14
28		28	28	24	24	28	28	24			24	27		22, 26, 27
34		34		33	32, 33, 34	34	33, 34	32, 33	31, 35		33			33, 34
					47, 48	42	43	42		43	43		43	43
53, 55	53	51, 53, 55	53, 55	50		51, 54	50, 51, 53, 54, 55	50		51, 53	54	50, 51	50, 51, 54	50, 55

8 Stadium Details
11 Umpire Details
12 Extras Information
14 Advertisement
55 Special Moments

24 Comentator's details
28 Interesting Information
33 Surveys
34 Bigscreen Animated Displays
43 After Match Player Interviews

50 Fair Play Award Standings [team standings]
51 Awards Presentation
53 Fun Feed
54 Team standings in a tournament
27 Leading Run scorers/ Wicket Takers in the tournament

Feeds and extras

Pre-match details	Pre-match details	Pre-match info	
1, 3, 8	3, 8	3, 8	3, 8
	11	11	11
	24	24	
32	32	32	32

3 Toss Details
8 Stadium Details
11 Umpire Details
32 Commentator Reports [toss, pitch, sideline]

Match Prediction	Summary	Match Stats	Match Summary	Match Summary	Static Match info	
	1, 9			1, 3, 9	1	1
	16, 17	10, 15		13, 16		
	22, 26	20	21, 22, 26	20, 22, 25, 26, 29	22, 26, 27	22, 26
31, 37	30	30, 31, 33, 35, 37, 38	30, 37	30, 38		30, 37, 38
41, 42			48			

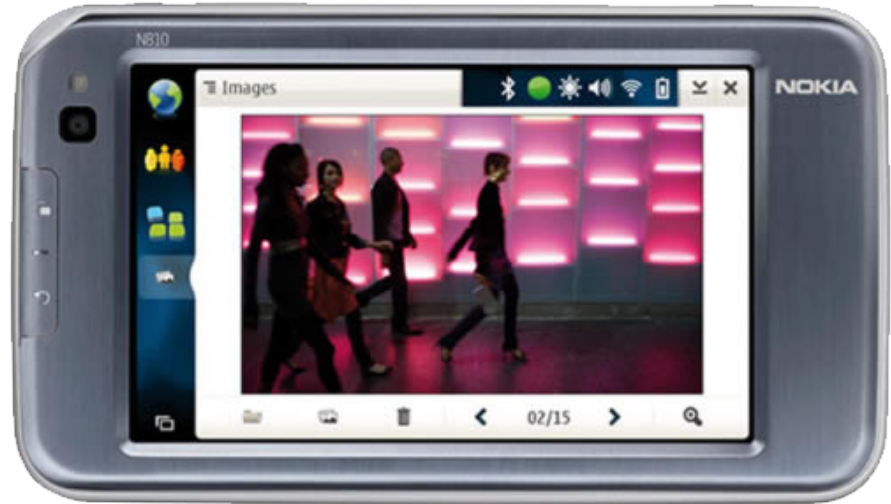
1 Match Details
22 Brief Match Summary
26 Team's inning's summary
30 Last 5 overs summary
37 Partnership Details
38 Projected Score

Pre-match details

Match Summary

Final Concept

Final concept

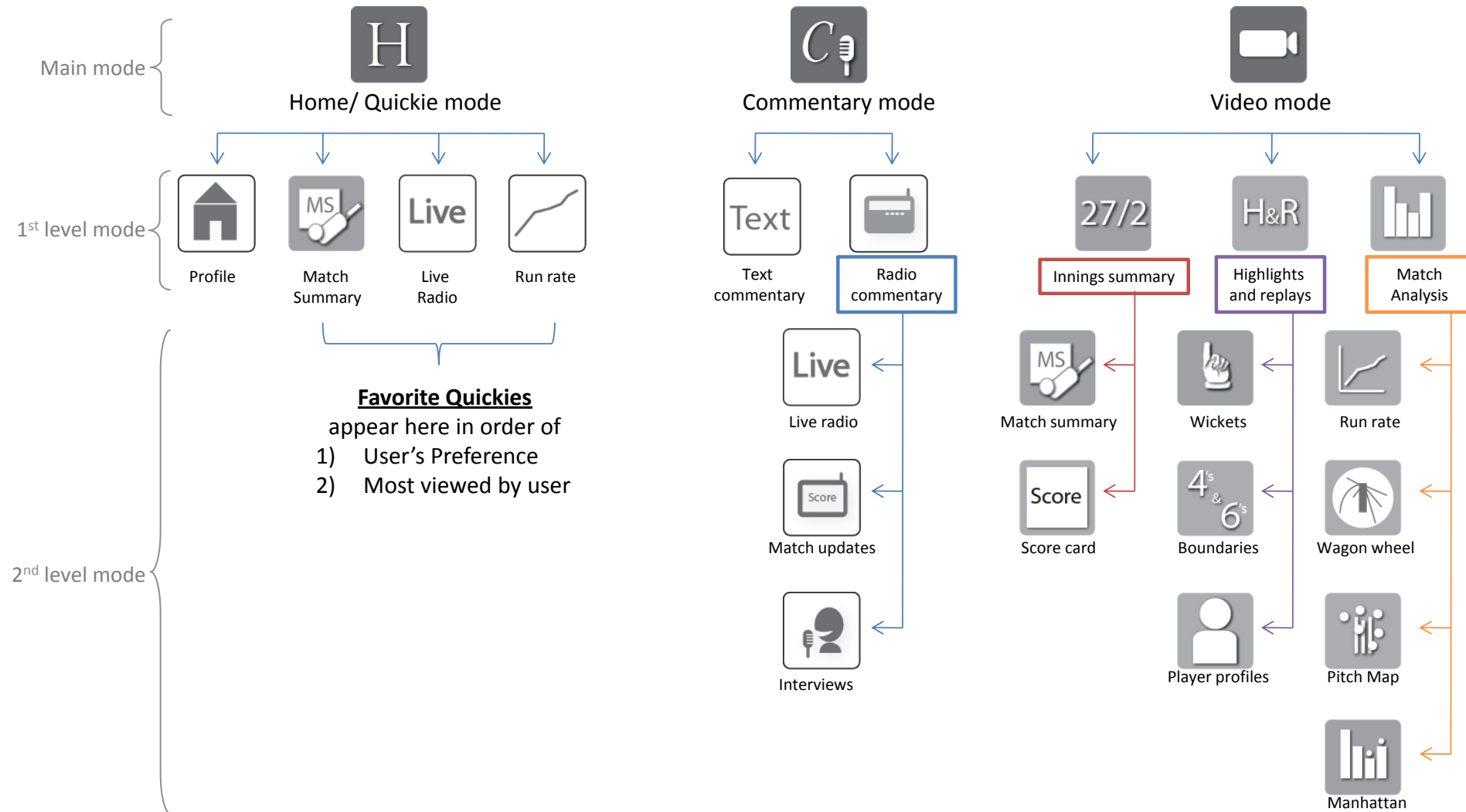


The key points included while designing the final concept are:

- Evaluation of the features discussed in the initial concepts
- Information categorization done through card sort
- Navigation and structuring of the information to be displayed
- Aesthetics of the screen displaying the information

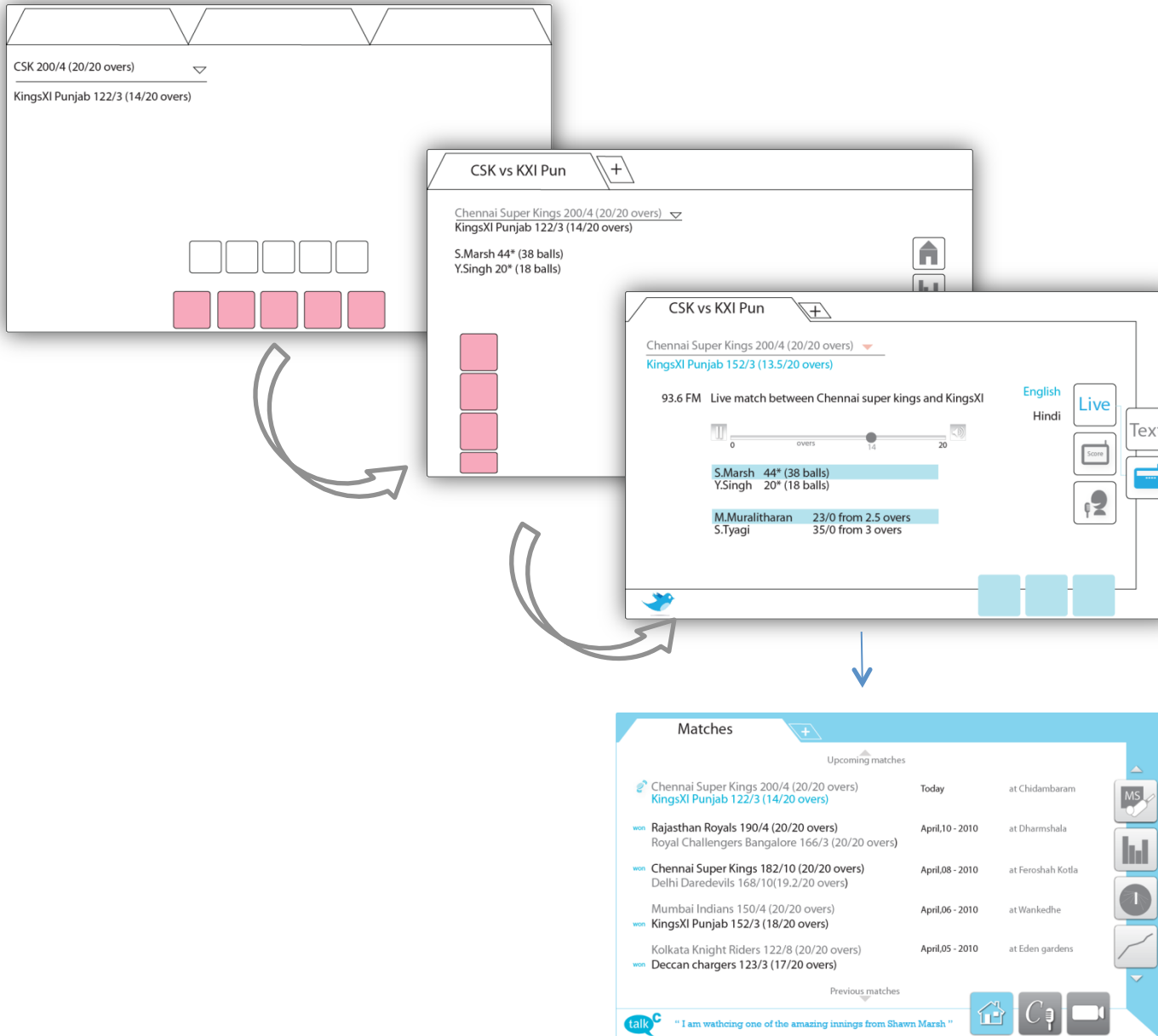
Final concept

Conceptual model



Final concept

Explorations





Keys : More than 2.3cms x 2.3cms

For easy use by fingers

Font: Myriad Pro

Type Size: 12pts.

For easy readability

Scenarios

Usability Evaluation

Think aloud test | 3 users

Navigation

"After the first attempt can easily navigate through the options"

No icon to come out of the application!!

Nomenclature

Certain icons needed help to be understood,
Example: Match Summary, Radio match update



"Icons can change according to the tournament"

For example, icons and content can be related to IPL
<implemented>



Interface design

"I Want to pick the color of the interface"

Future Scope

1. An actual model can be made and tested out for live streaming capabilities
2. There can be an online version of the same application which allows users to make their profile in office and also interact through their mobile phones.

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Thank You