

MATT KRANZLER & MATT RUNO

BEYOND THE GUIDELINES: ANDROID DESIGN



WHY DESIGN?

**USERS DON'T
SEE CODE**

DESIGN MATTERS!



BASICS OF DESIGN

[MATT RUNO]

USER EXPERIENCE





MENTAL MODELS

**“THE MIND CONSTRUCTS
‘SMALL SCALE MODELS’ OF
REALITY...”**

- KENNETH CRAIK

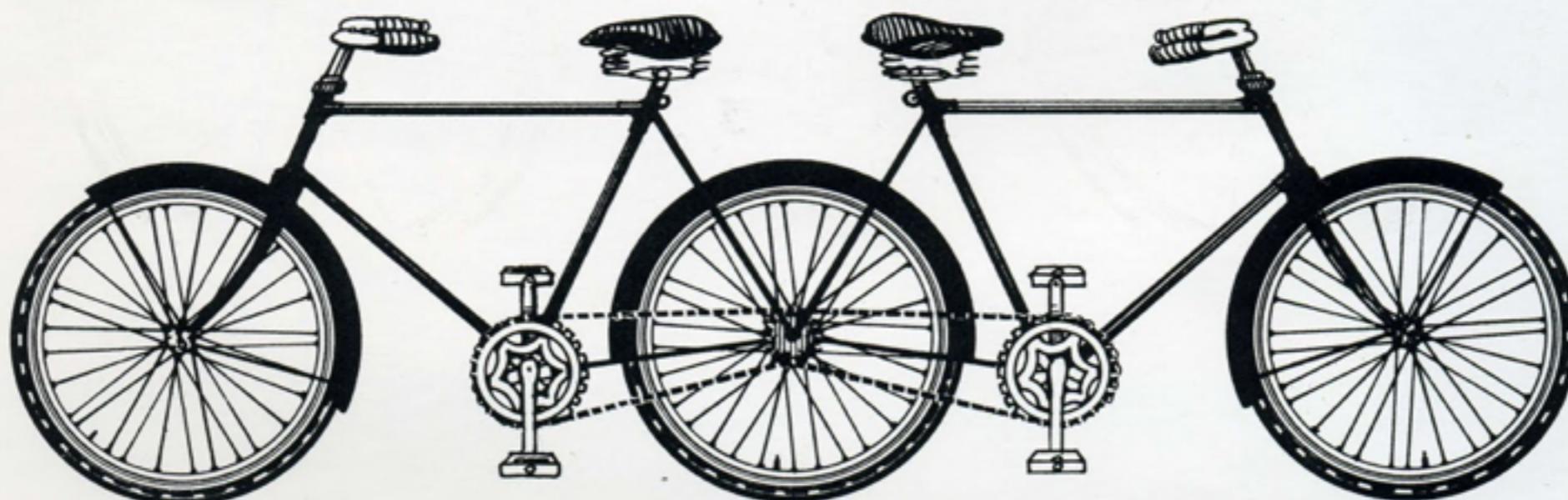
MENTAL MODELS

- Built through interaction and explanation
- Functional models (knowing what, but not why)
- Structural models (knowing why)
- Built through interaction





TANDEM CONVERGENT. Modèle pour fiancés.

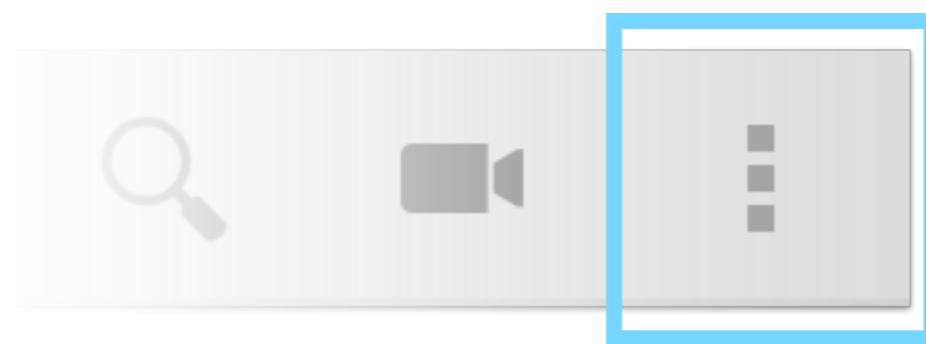


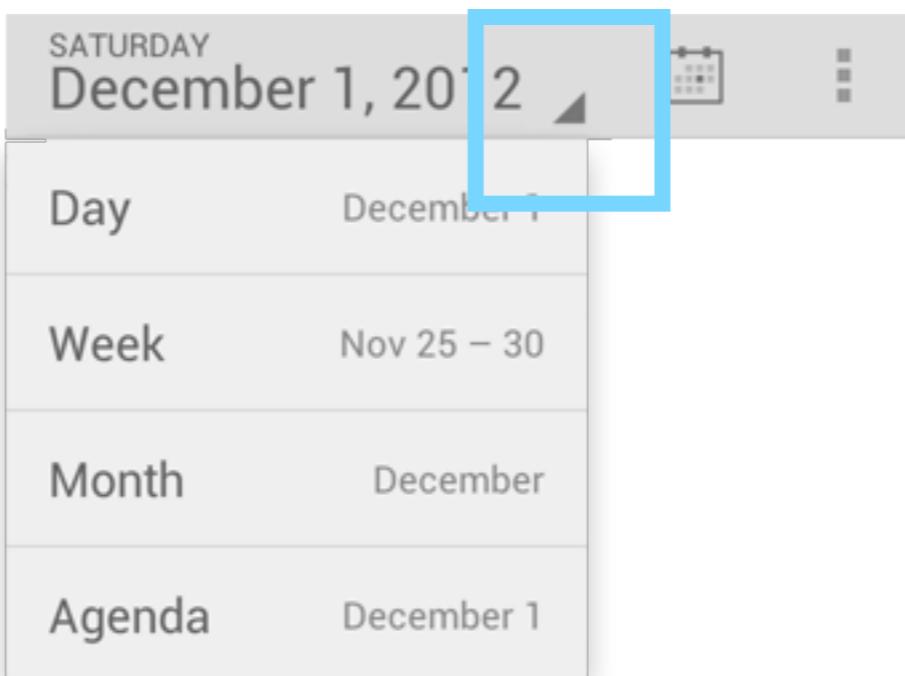
TANDEM DIVERGENT. Modèle pour couple en instance de divorce.

Convergent Bicycle (Model for Fiancés) by Jaques Carelman
Divergent Bicycle (Model for Divorcées) by Jaques Carelman



CONVENTIONS

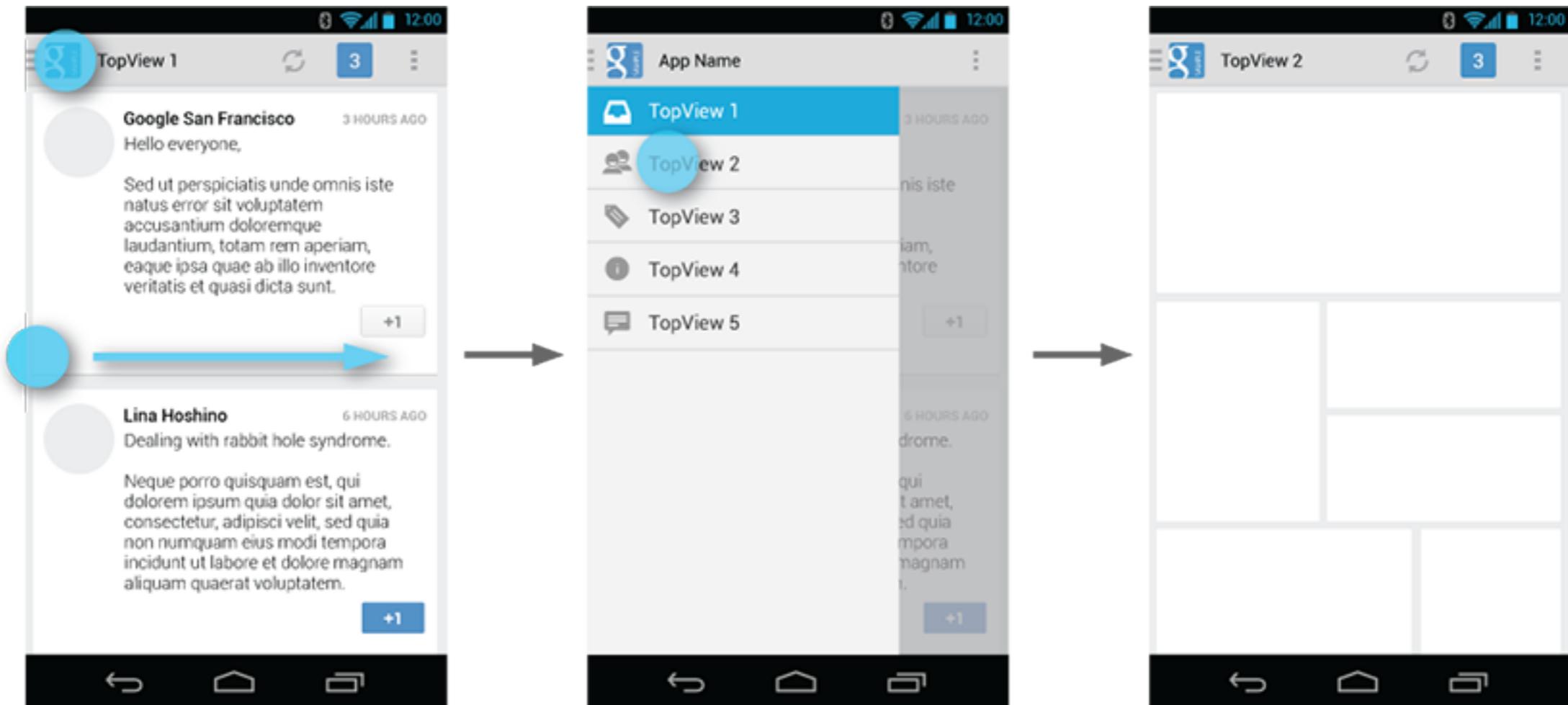


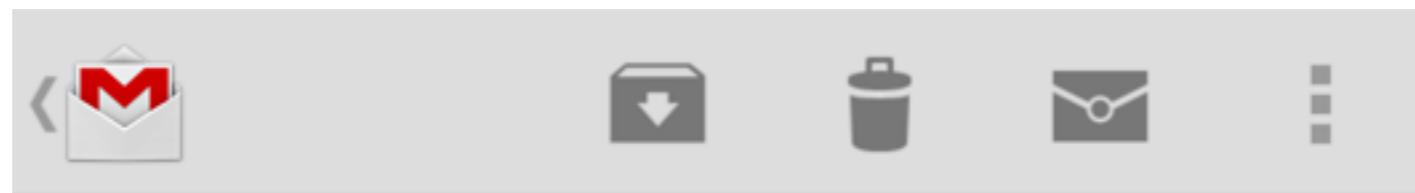


TAB 1

TAB 2

TAB 3

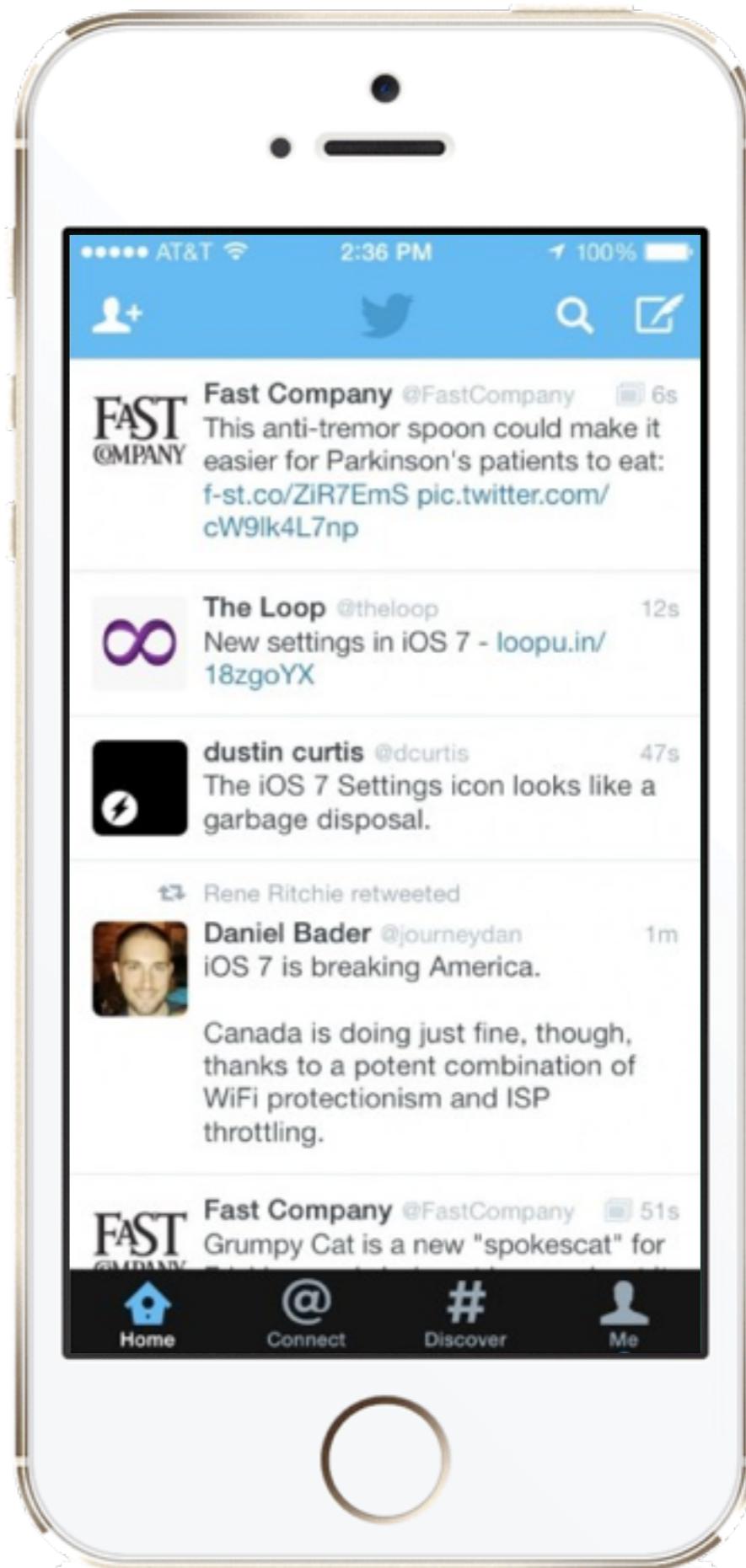
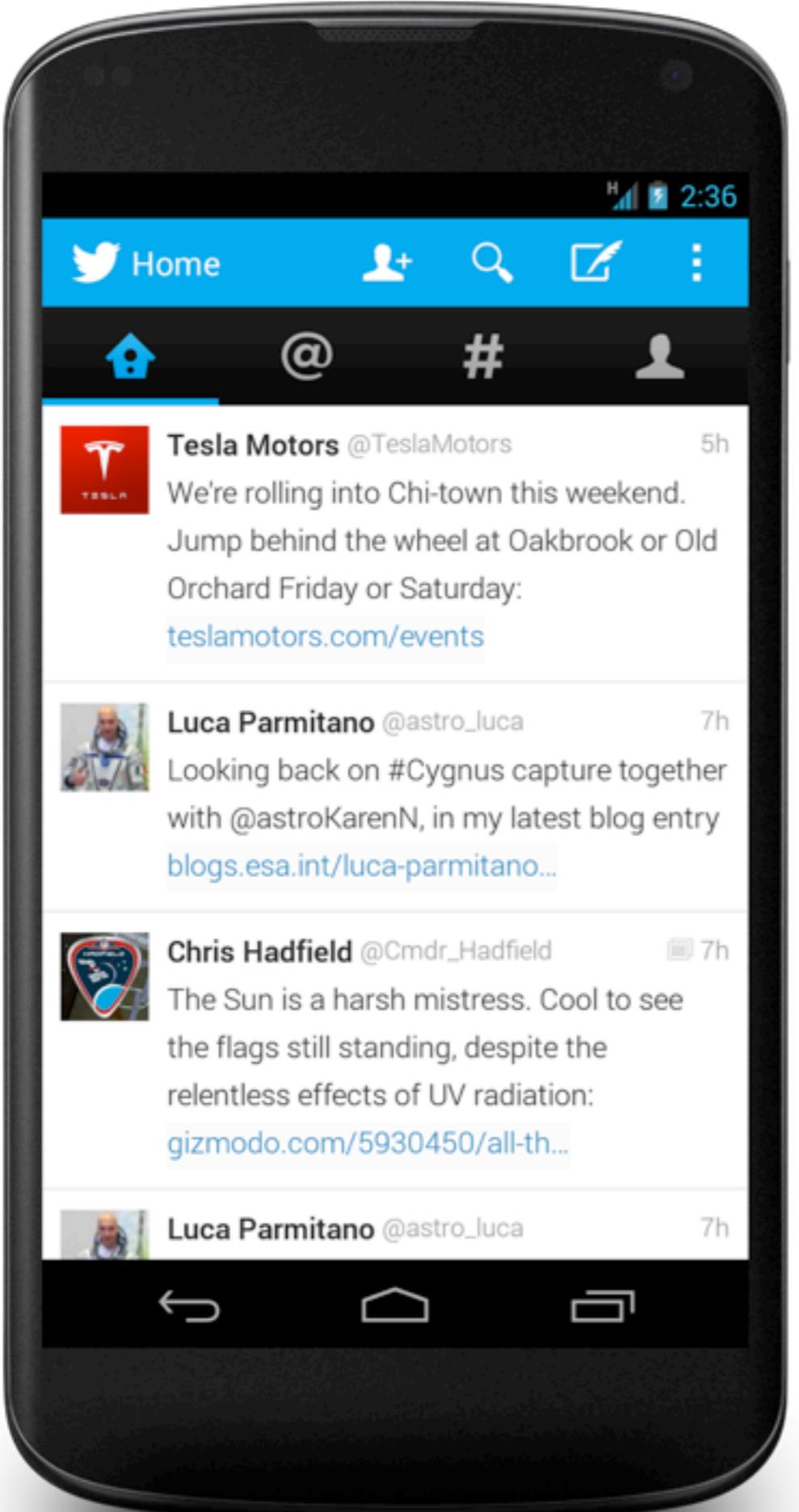


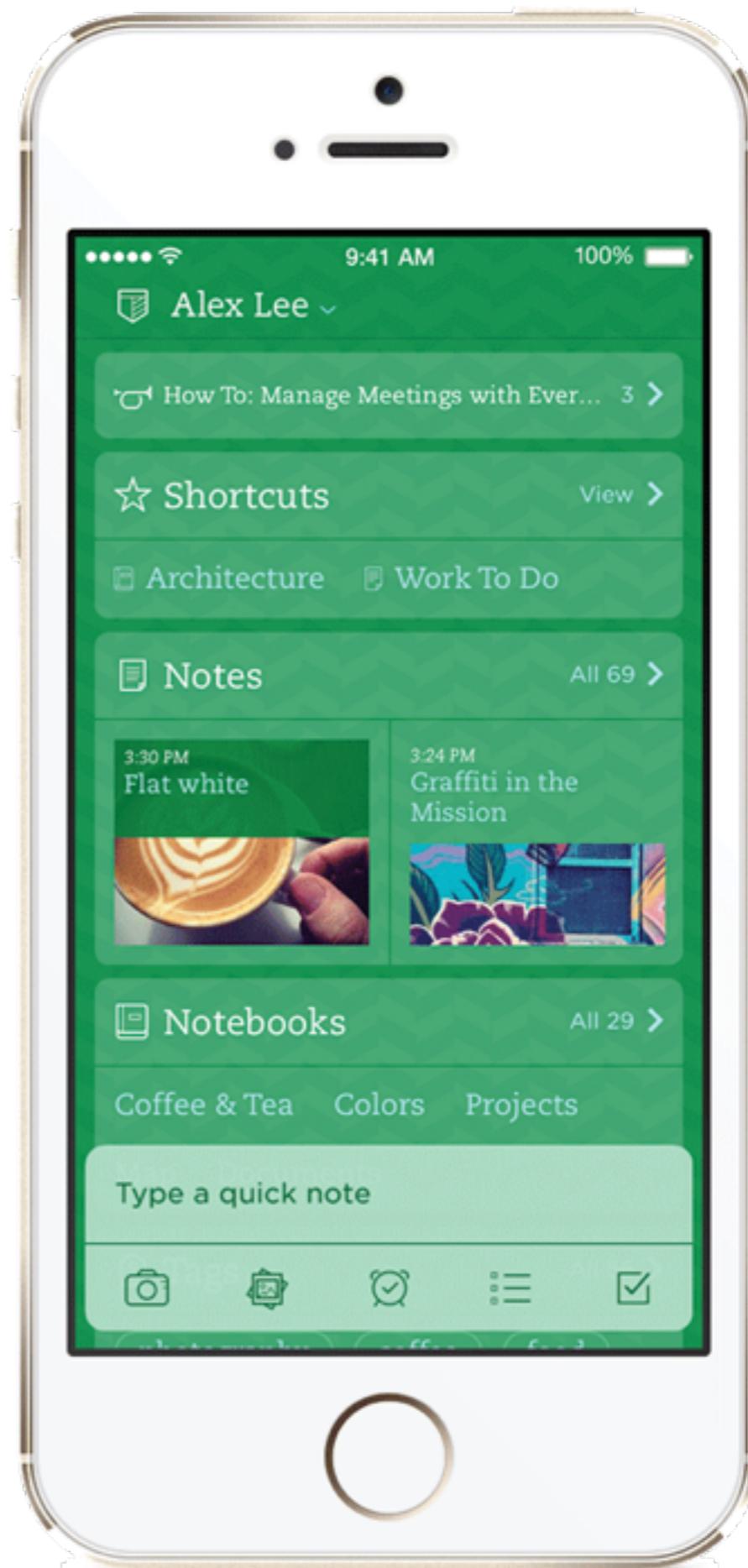
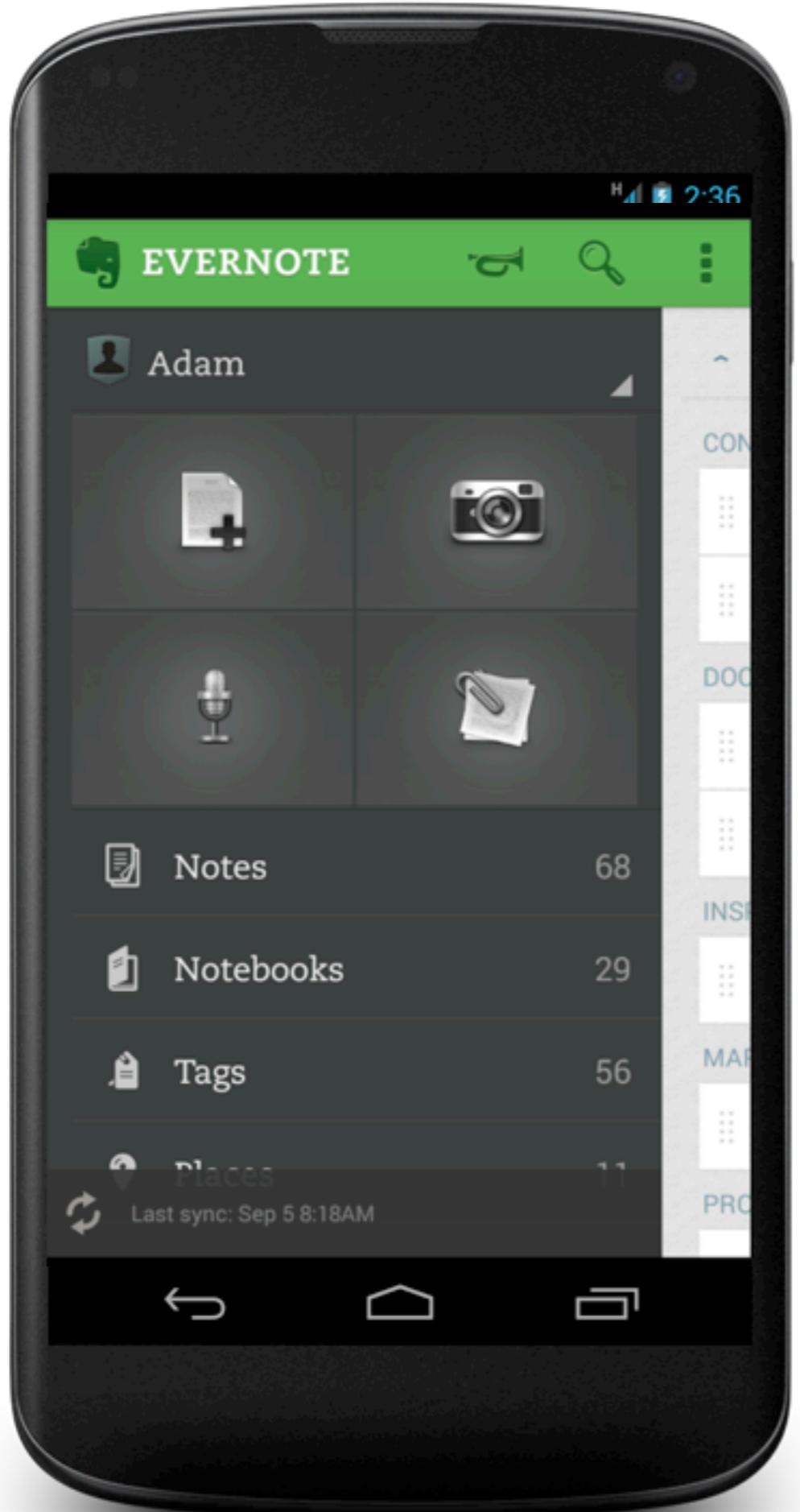


ANDROID DESIGN GUIDELINES

- Defines overall style for the Android Platform.
- Users expect to see certain things in Android.
- Guidelines change and evolve
- There can be exceptions

CONSISTENCY





AFFORDANCE

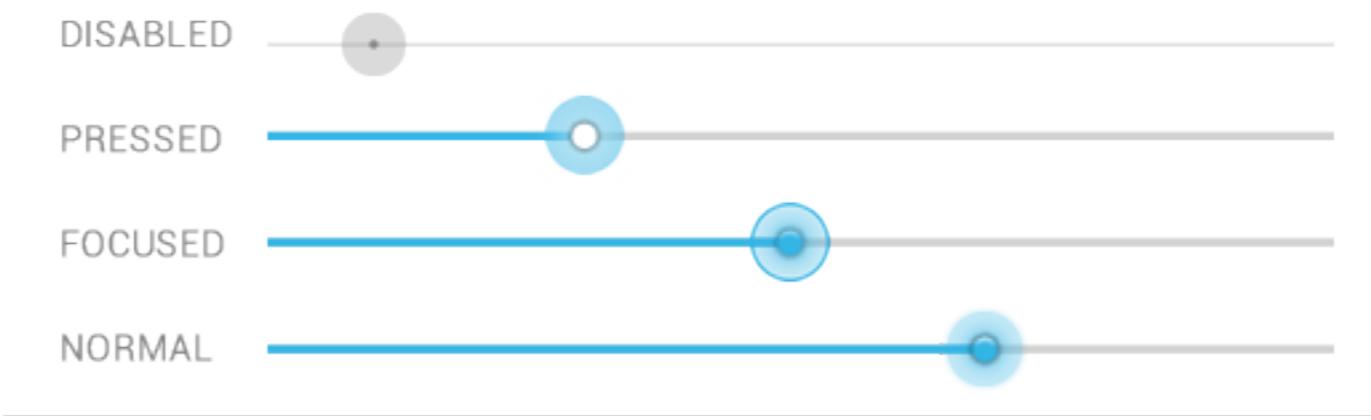




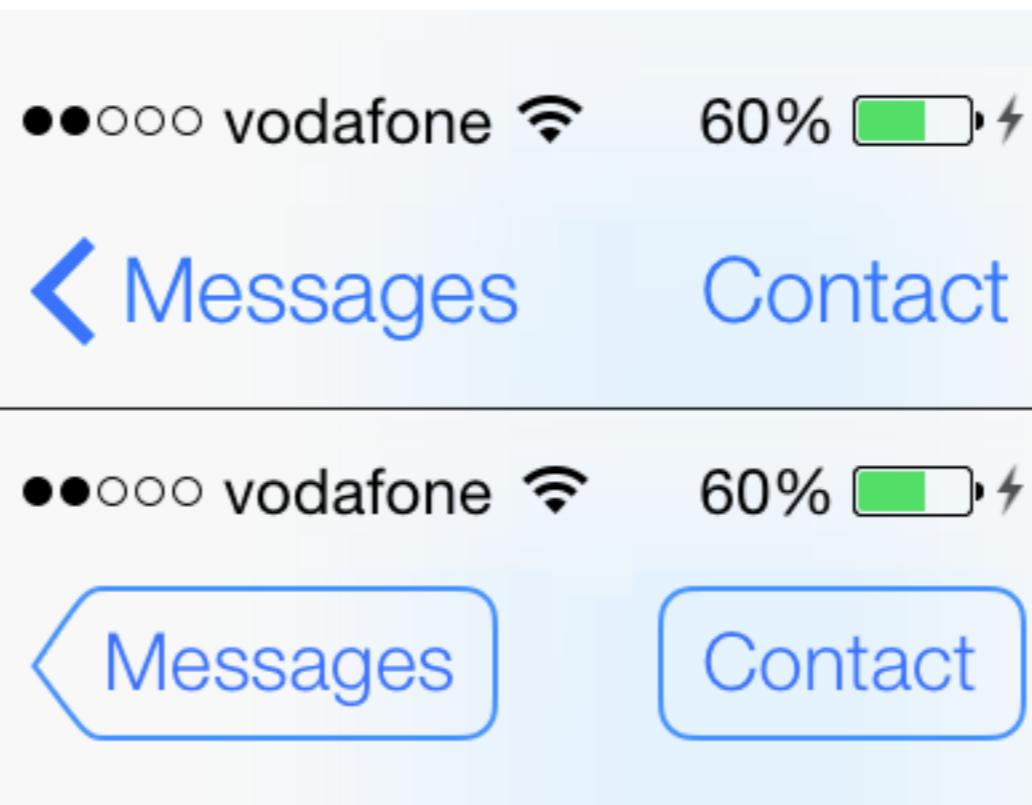


OFF

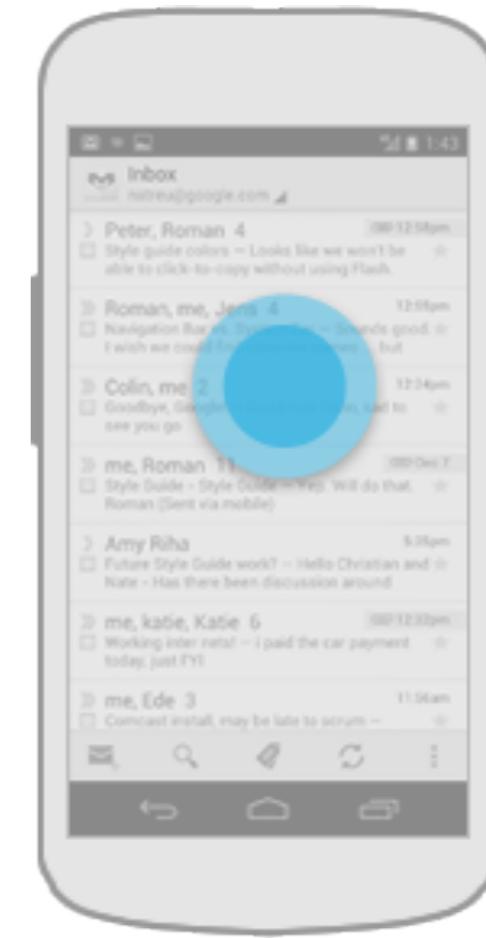
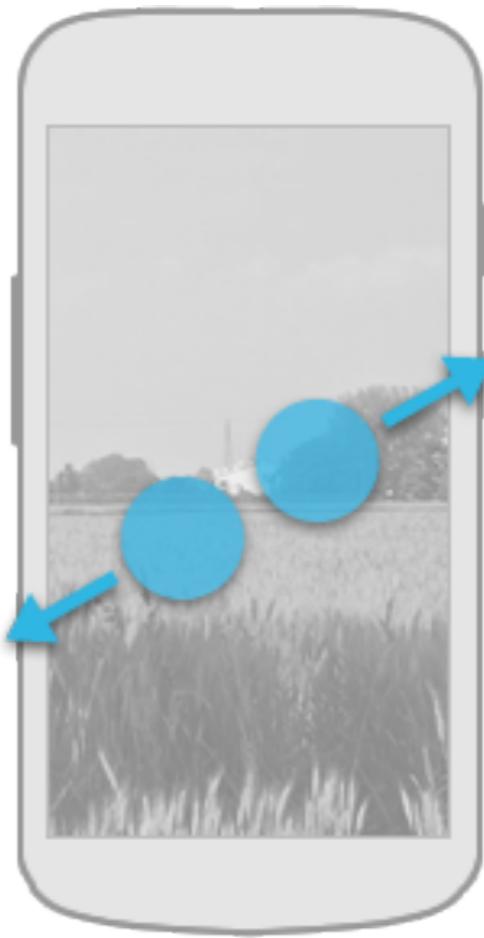
ON





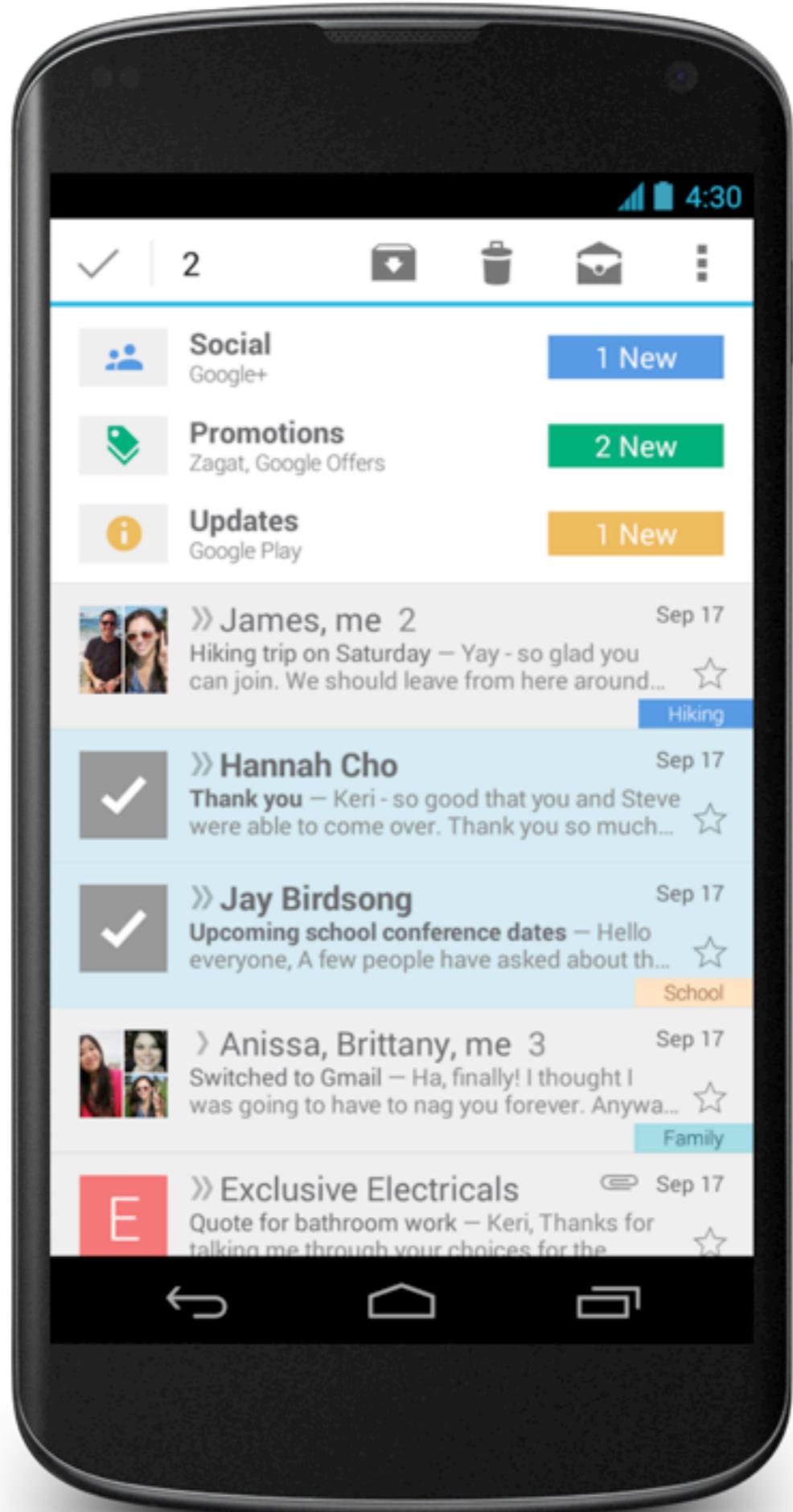


GESTURES



ROADBLOCKS

MODES



vi / vim graphical cheat sheet

ESC	normal mode														
~ toggle case	! external filter	@ play macro	# prev ident	\$ eol	% goto match	^ "soft" bol	& repeat	* next ident	(begin sentence) end sentence	"soft" bol down	+ next line	-	0 "hard" bol	= auto format
~* goto mark	1 2 3 4 5 6 7 8 9														
Q ex mode	W next WORD	E end WORD	R replace mode	T 'back till	Y yank line	U undo line	I insert at bol	O open above	P paste before	{ begin parag.	}	end parag.			
q record macro	W next word	e end word	R replace char	t 'till	y yank ^{1,3}	u undo	i insert mode	O open below	P paste after	{ misc		}	misc		
A append at eol	S subst line	D delete to eol	F "back" find ch	G eof/ goto ln	H screen top	J join lines	K help	L screen bottom	:	": ex cmd	" reg spec	bol/ goto col			
a append	S subst char	d delete ^{1,3}	f find char	g extra ⁶ cmd	h ←	j ↓	k ↑	l →	:	: repeat	' goto mk. bol	\ not used!			
Z quit ⁴	X back-space	C change to eol	V visual lines	B prev WORD	N prev (find)	M screen mid'l	< un- ³ indent	> indent ³	?	find (rev.)					
Z extra ⁵ cmds	X delete char	C change ^{1,3}	V visual mode	b prev word	n next (find)	m set mark	, reverse t/T/f/F	* repeat cmd	/	find					

motion moves the cursor, or defines the range for an operator

command direct action command, if red, it enters insert mode

operator requires a motion afterwards, operates between cursor & destination

extra special functions, requires extra input

Q· commands with a dot need a char argument afterwards

bol = beginning of line, eol = end of line, mk = mark, yank = copy

words: `quux(foo, bar, baz);`

WORDs: `quux(foo, bar, baz);`

Main command line commands ('ex'):

:w (save), :q (quit), :q! (quit w/o saving)
:e f (open file f),
:%s/x/y/g (replace 'x' by 'y' filewide),
:h (help in vim), :new (new file in vim),

Other important commands:

CTRL-R: redo (vim),
CTRL-F/-B: page up/down,
CTRL-E/-Y: scroll line up/down,
CTRL-V: block-visual mode (vim only)

Visual mode:

Move around and type operator to act on selected region (vim only)

Notes:

(1) use "x before a yank/paste/del command to use that register ('clipboard') (x=a..z, *)
(e.g.: "ay\$ to copy rest of line to reg 'a')

(2) type in a number before any action to repeat it that number of times
(e.g.: 2p, d2w, 5i, d4j)

(3) duplicate operator to act on current line (dd = delete line, >> = indent line)

(4) ZZ to save & quit, ZQ to quit w/o saving

(5) zt: scroll cursor to top,
zb: bottom, zz: center

(6) gg: top of file (vim only),
gf: open file under cursor (vim only)

BE FORGIVING

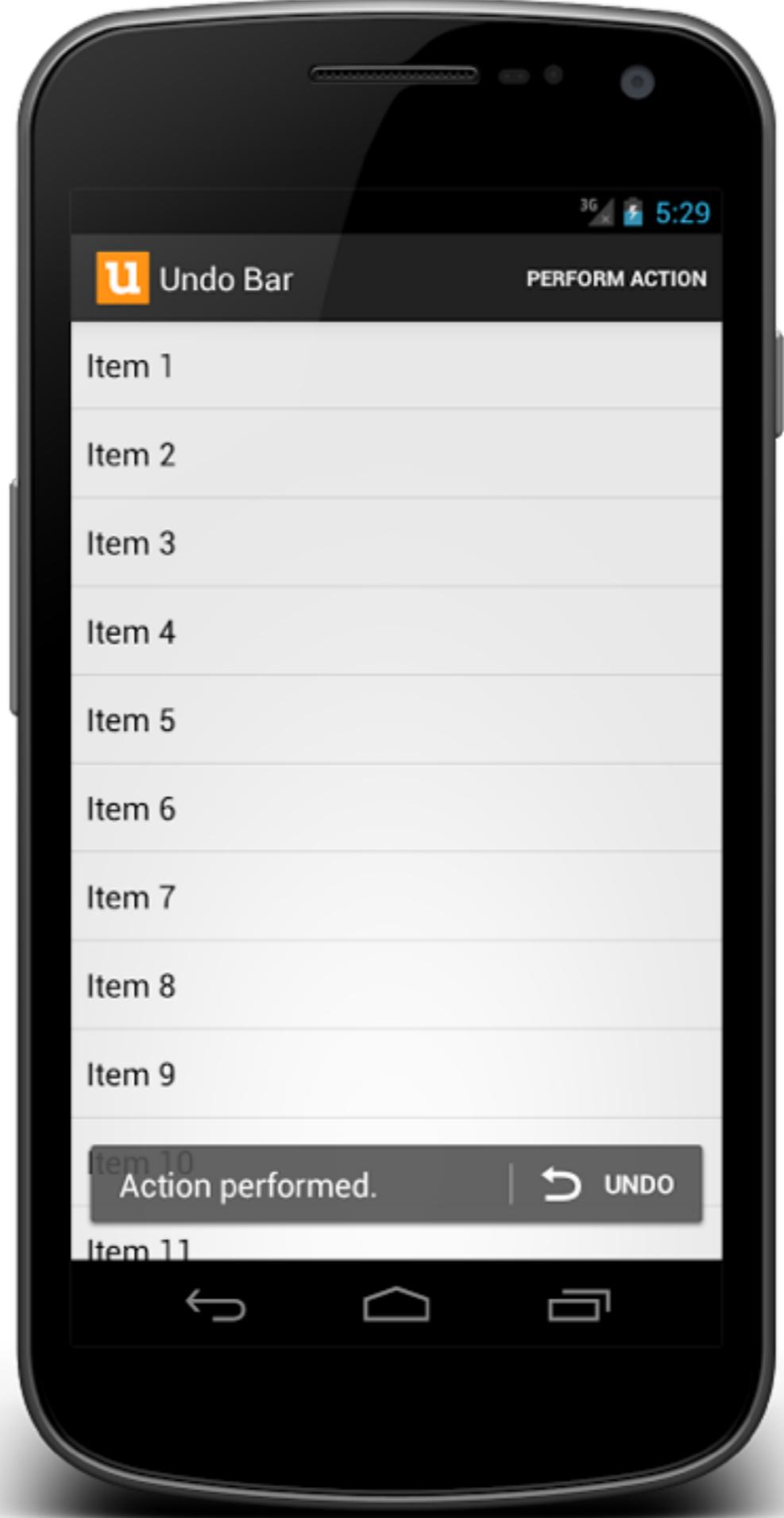


Erase USB storage?

You'll lose all photos and media!

Cancel

Erase



METAPHOR







METAPHOR

- As basic as icons
- As low level as “Check In” in a Hotel app when you arrive
- How did people used to do _____?





SKEUOMORPHISM

All Contacts

 Patel Ravi

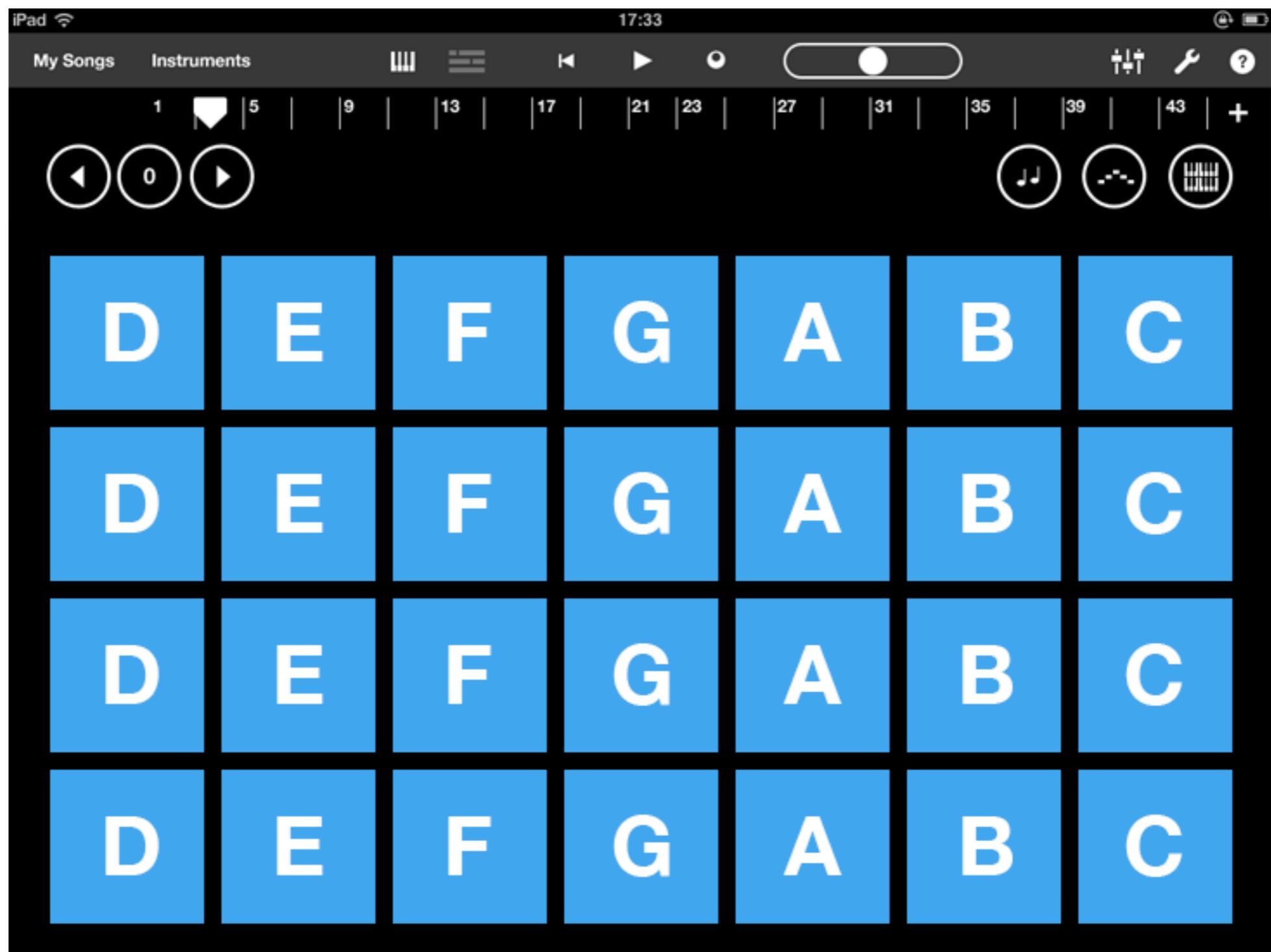
 **Patel Ravi**
Apple, Inc.

iPhone 408-996-1010
work 1 Infinite Loop Drive
Cupertino CA 95014
USA

note

   Edit Share





FLAT DESIGN







Hatter.

"Nor I," said the March Hare.

Alice gave a weary sigh. "I think you might do something better with the time," she said, "than wasting it in asking riddles that have no answers."

"Take some more tea," the March Hare said to Alice, very earnestly.

"I've had nothing yet," Alice replied in an offended tone, "so I can't take more."

"You mean you can't take *less*," said the Hatter; "it's very easy to take *more* than nothing."

At this, Alice got up and walked off. The Dormouse fell asleep instantly and neither of the others took the least notice of her going, though she looked back once or

twice; the last time she saw them, they were trying to put the Dormouse into the tea-pot.





**“GOOD DESIGN IS AS LITTLE
DESIGN AS POSSIBLE”**

- DIETER RAMS

DESIGN PROCESS

WIREFRAMES

WIREFRAMES? THAT SOUNDS LIKE WORK!

- Prove the user experience.
- Focus on the structure.
- Learn what your testers like & hate.
- Fix app-wide issues early!



Stephanie Garvey Photography

< - >

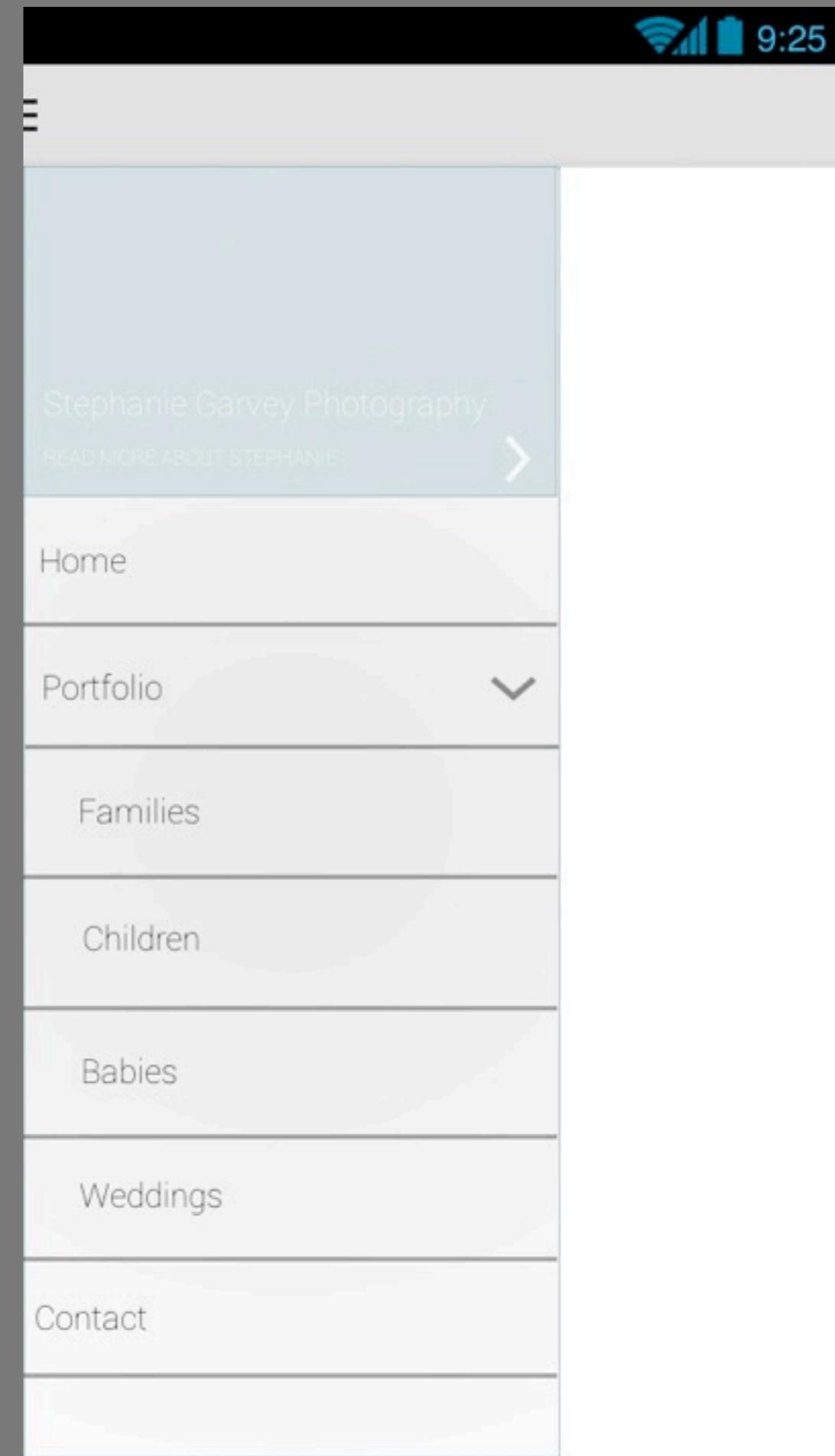
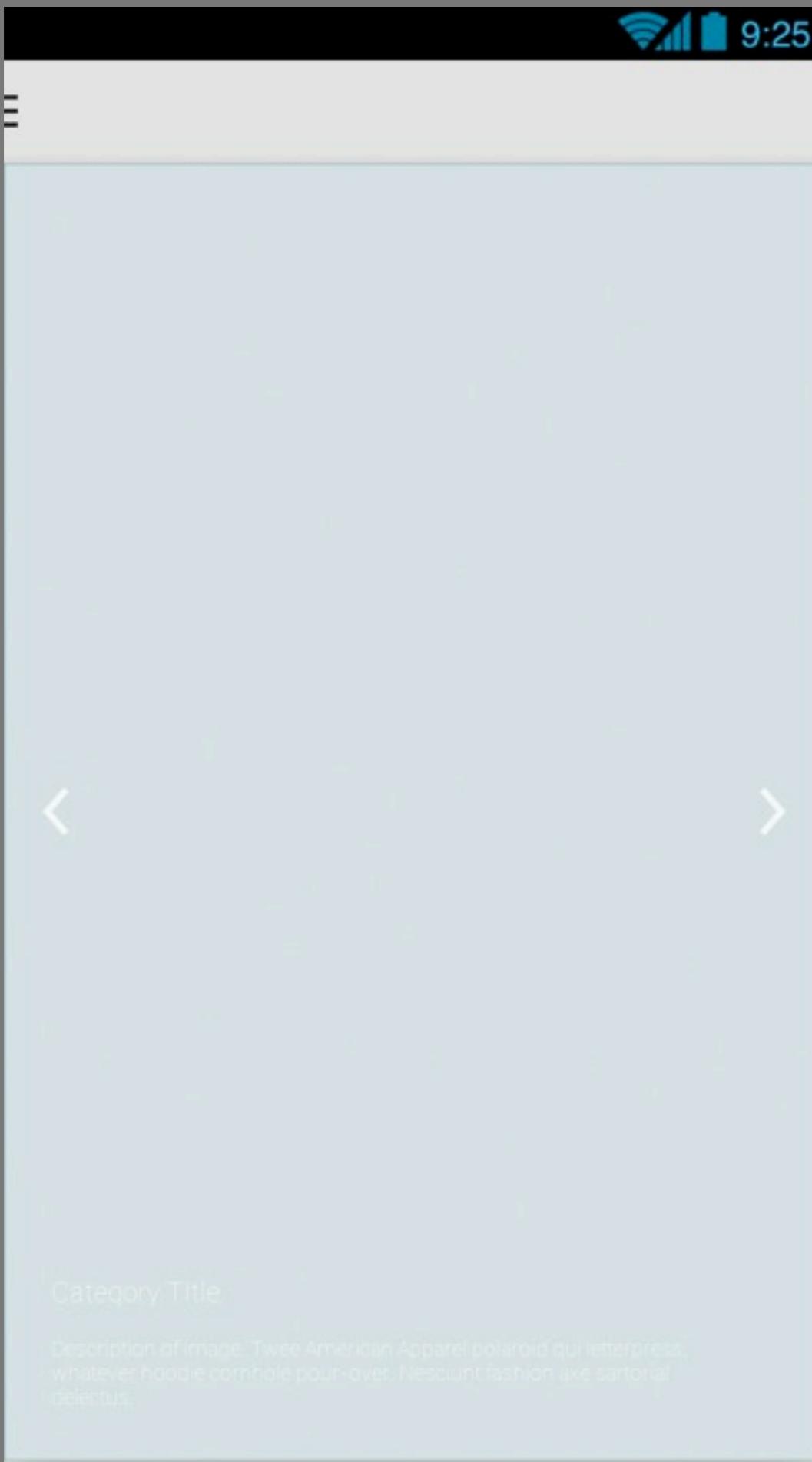
Category Title

Description of image. Twee American Apparel polaroid qui letterpress, whatever hoodie cornhole pour-over. Nesciunt fashion axe sartorial delectus.



About text. Post-ironic pork belly seitan Austin. Bushwick aliquip scenester 3 wolf moon, Williamsburg Carles readymade odio wolf Truffaut Shoreditch mixtape. Intelligentsia aesthetic cillum

[Read More](#)

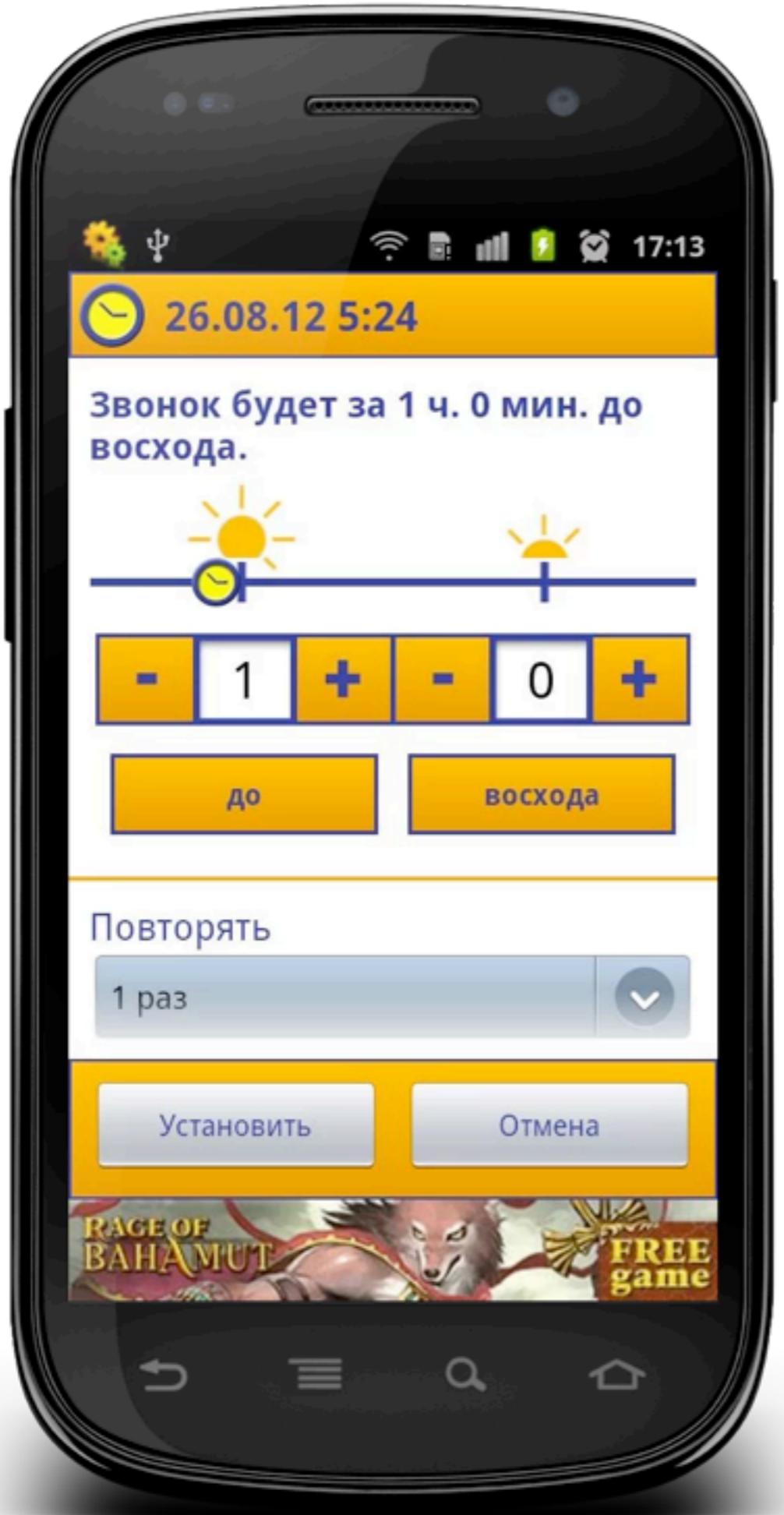


WIREFRAME TOOLS

- Paper and Pencil (free!)
- Balsamiq
- Fluid UI
- Proto.io
- OmniGraffle
- Fireworks
- Illustrator/Photoshop

VISUAL DESIGN

[MATT KRANZLER]





THE SMALL THINGS

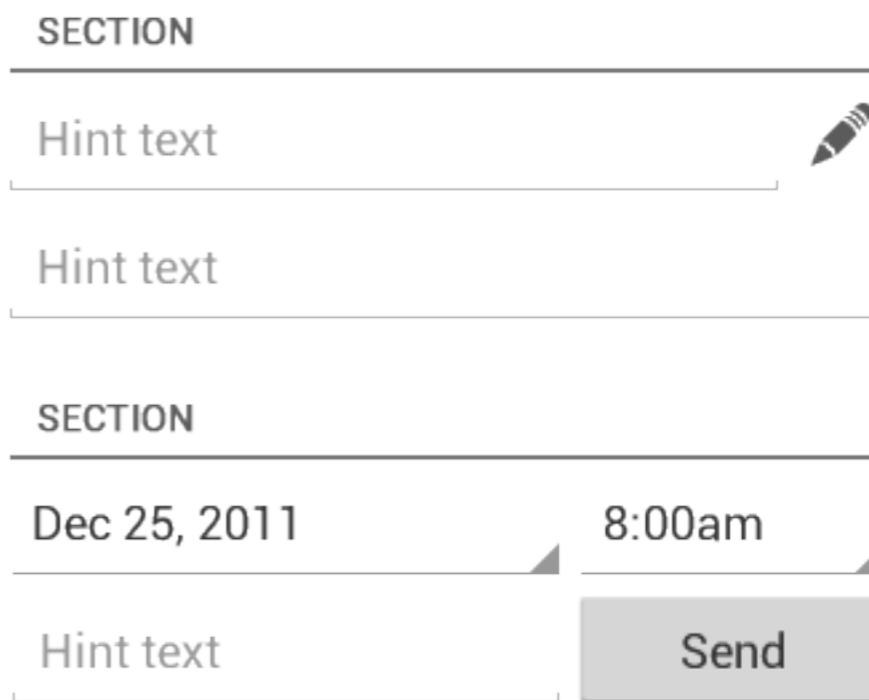
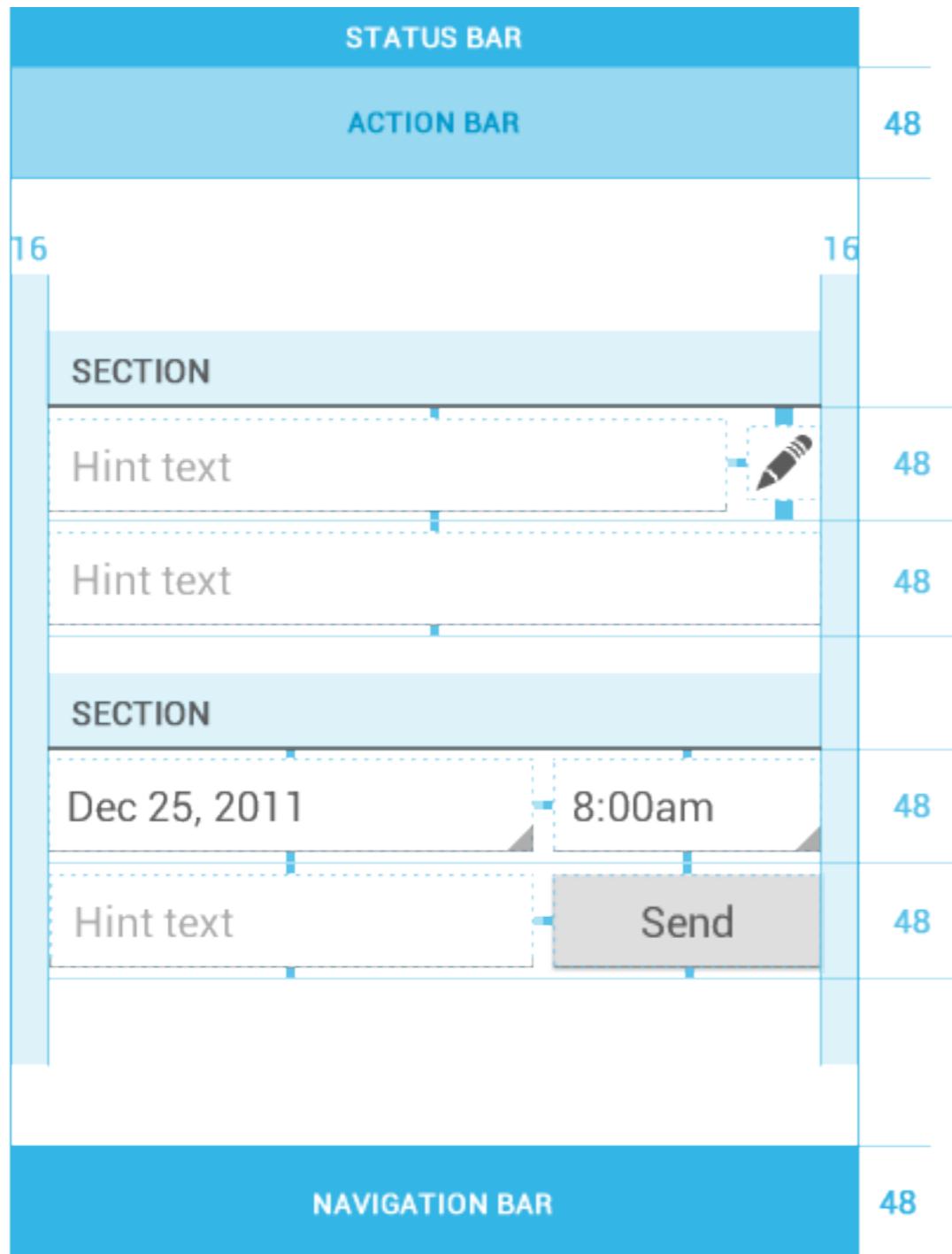
STUFF

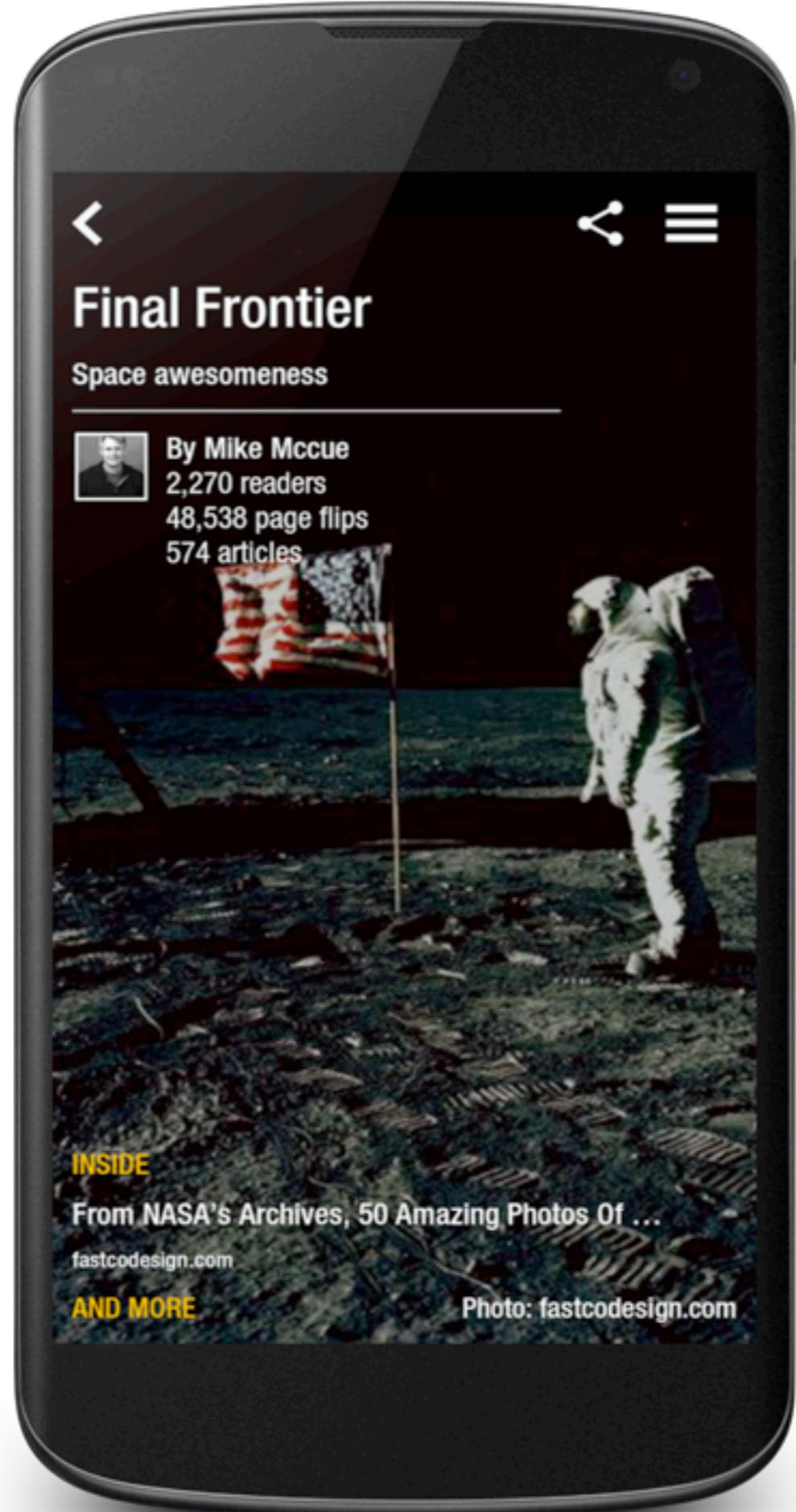
LINE

UP!

**LINE
STUFF
UP!**

WHITESPACE





Cruises



Disney Magic to get a major makeover
The five-week overhaul of the ship will be the biggest in the line's history.



Disney ship to get watery thriller
The three-story AquaDunk water slide will debut on the Disney Magic in...



Is this the best new suite at sea?
Four 'Penthouse Spa Suites' will debut next month on the Seabourn Quest.



Star chef Cat Cora to headline cruise
The first female 'Iron Chef' will offer cooking demonstrations on a summe...



Cruise review: The Carnival Victory
The 2,758-passenger Carnival vessel sails out of Miami.



Cruising 101: Finding deals, booking a trip
Tips on finding a good agent and the best deal on a cruise vacation.



Disney Magic to get a major makeover

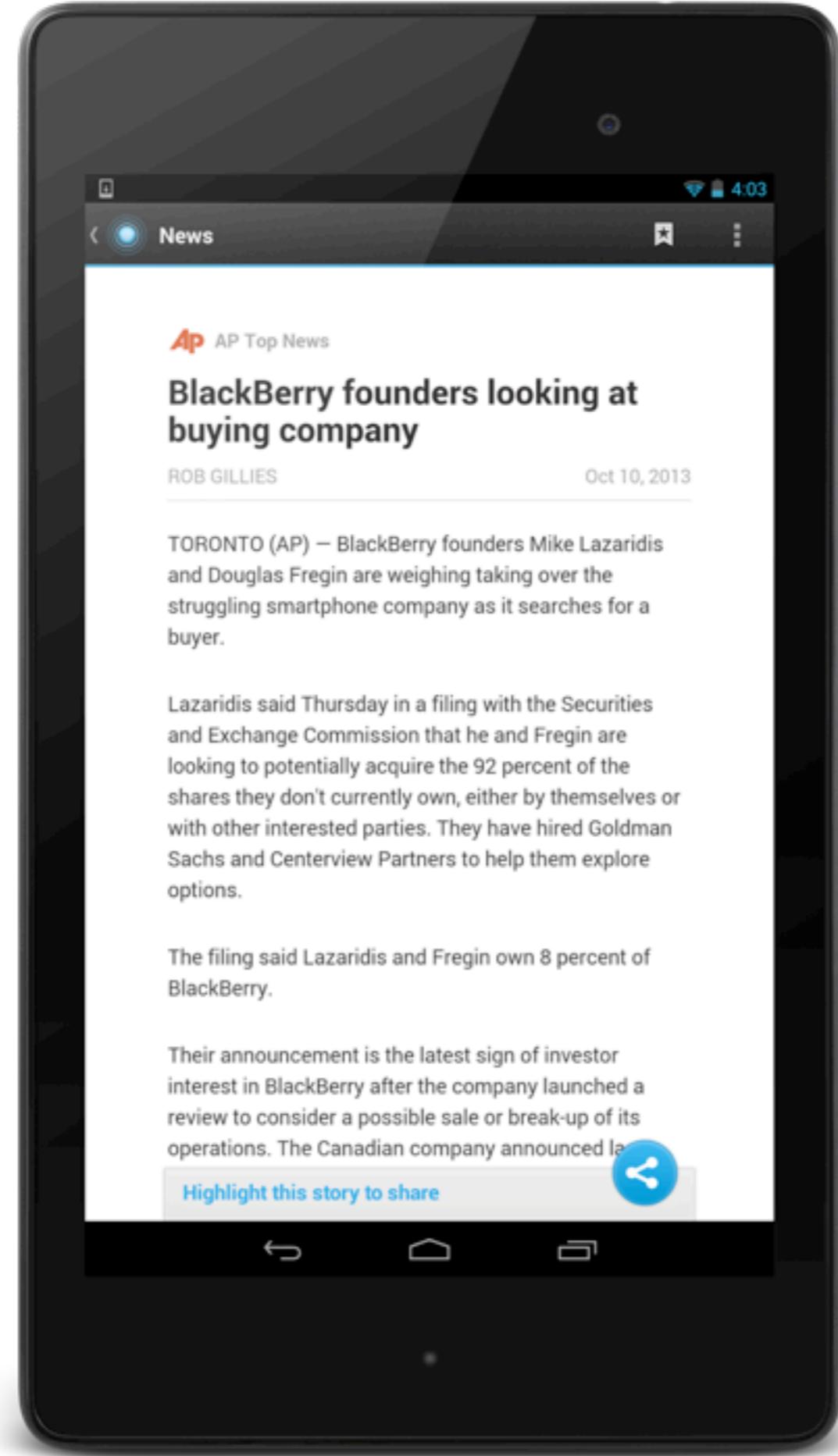
by Gene Sloan, USA TODAY
Updated 5h 56m ago

GALVESTON, Texas -- Disney's oldest cruise ship is about to get a major overhaul that will significantly transform its deck-top areas, restaurants, children's clubs and more.

The five-week makeover of the 1,754-passenger Disney Magic, to be announced today, will include the removal of the ship's iconic Mickey Pool, to be replaced by a new watery fun zone for kids, and the addition of what's billed as one of the most thrilling water slides ever on a cruise vessel. Other notable changes to the ship will include a major reworking of its grand Lobby Atrium -- a signature feature -- and the complete re-theming of its adults-only entertainment zone.

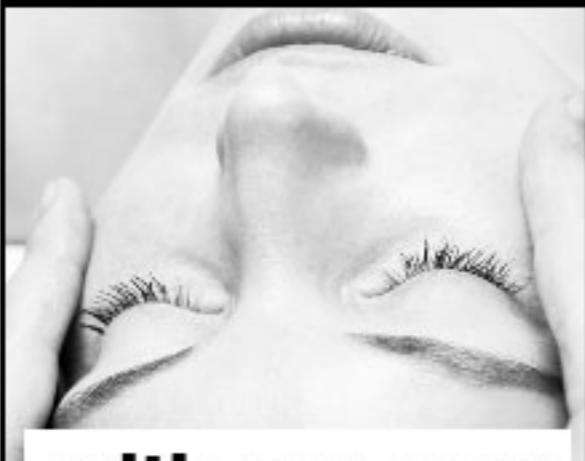
Designed to prepare the 15-year-old vessel for its next 15 years, the makeover will bring a number of new-for-the-line elements as well as features that first debuted on Disney's recently launched Disney Dream and Disney Fantasy, and it applies a number of "lessons learned" from those ships, Disney designer Joe Lanzisero says during a tour of the vessel to explain what's coming.

"One of our design approaches that you'll see as we move through the spaces is trying to create a more balanced design," says the Walt Disney Imagineering executive, who is overseeing the changes. "I think there's a little different aesthetic approach that we took on the Dream and the Fantasy (that will be implemented), maybe a little simpler, cleaner...and we're just learning more about how our guests use the spaces."



new!

EASE AWAY YOUR ACHE AND PAINS...



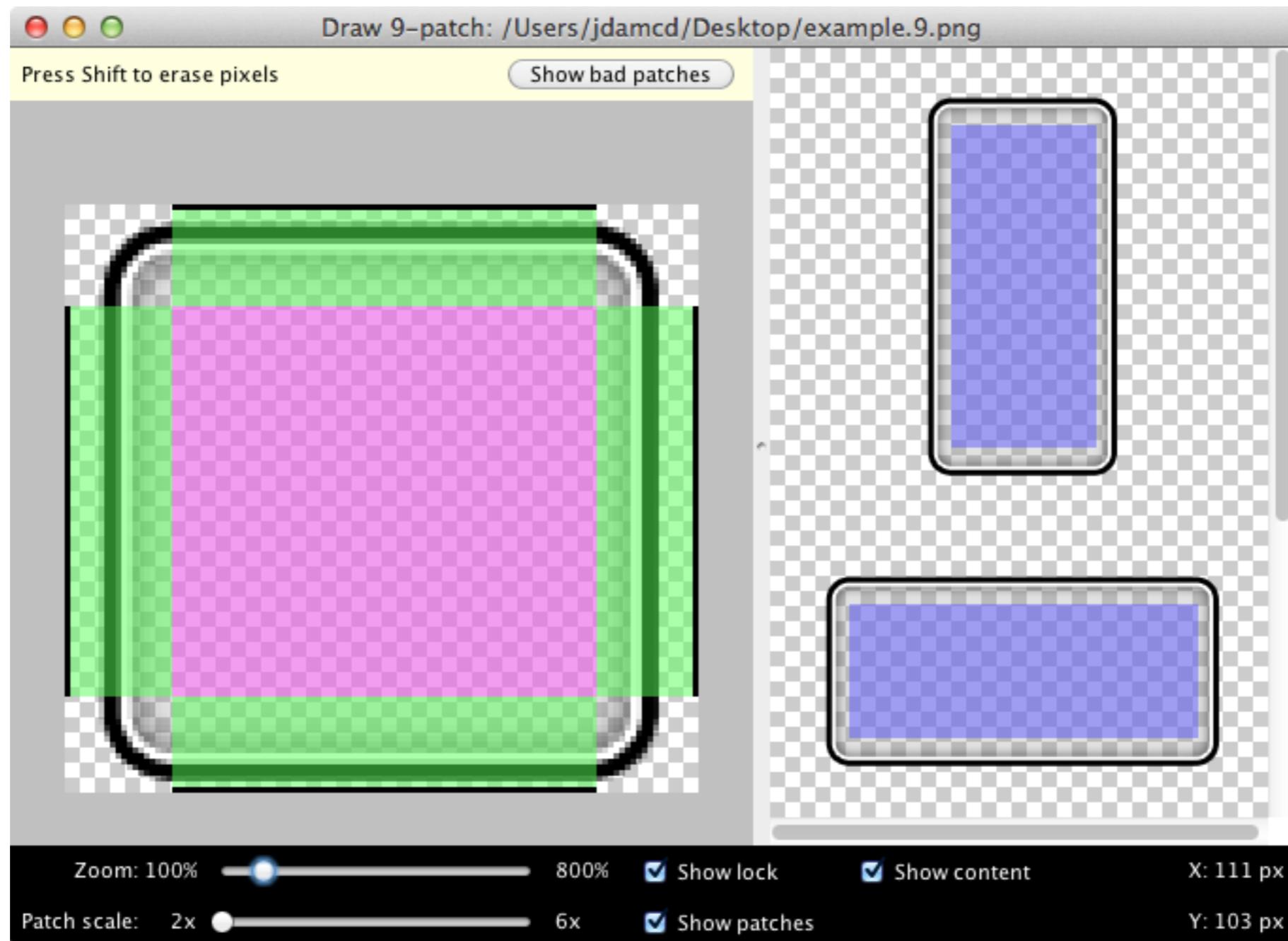
**with our new
face mask!**

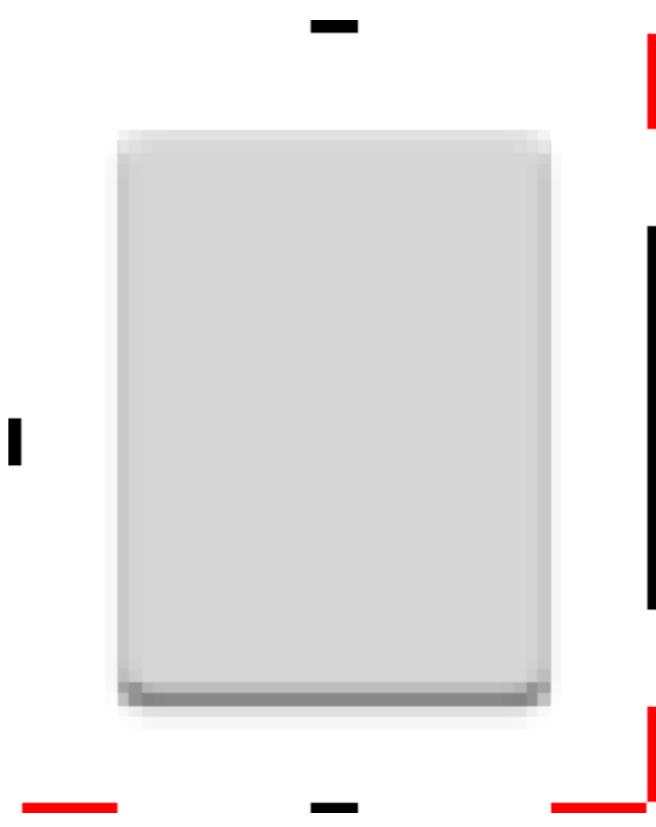
e a s e away your aches and pains



with our new face mask

OPTICAL BOUNDS





LOREM IPSUM
Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Sed malesuada ultricies adipiscing.

Button



LOREM IPSUM

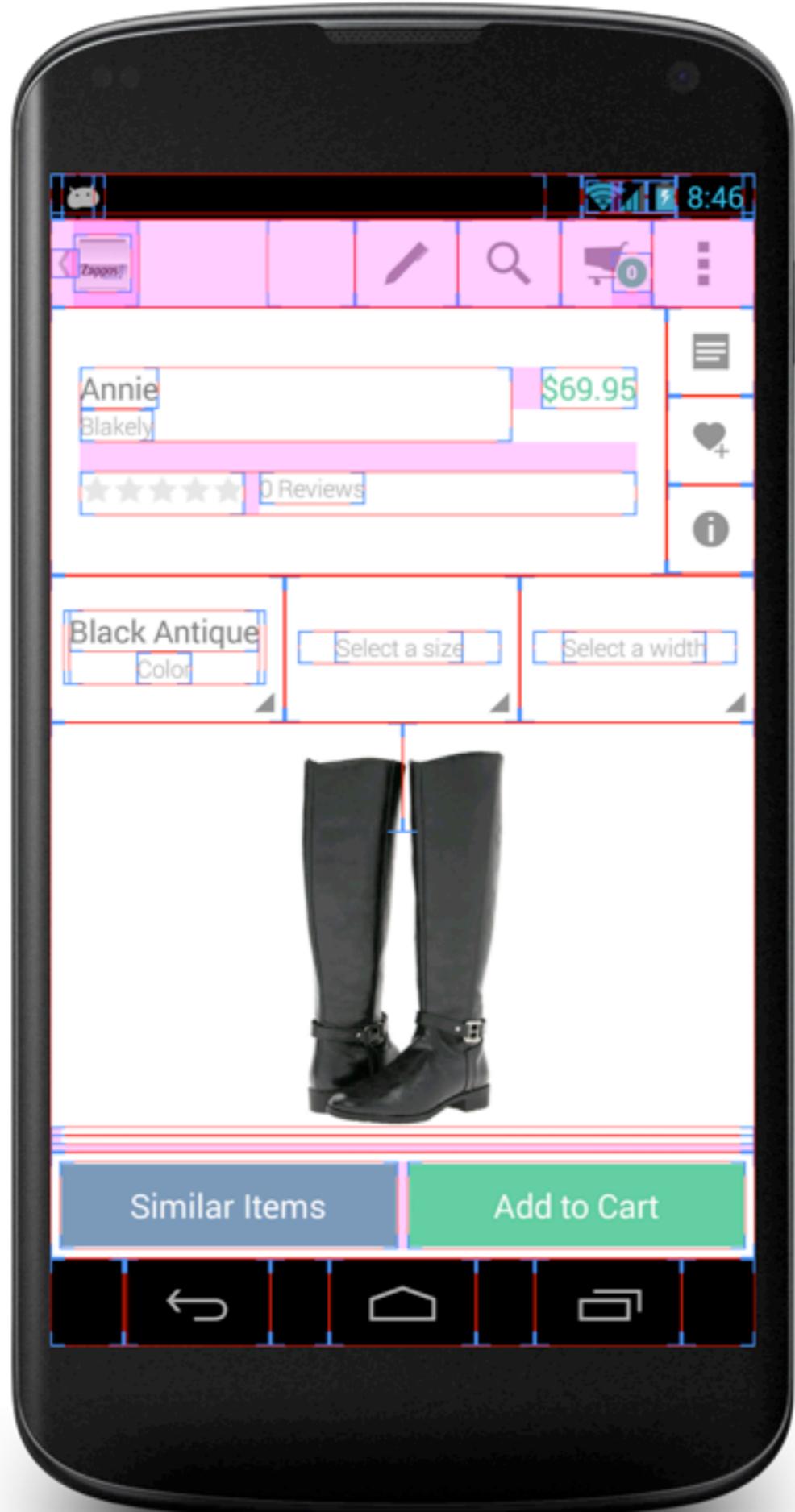
**DOLOR SIT AMET, CONSECTETUR
ADIPISCING ELIT. SED MALESUADA ULTRICES ADIPISCING.**

Button



OPTICAL BOUNDS (4.3+)

- Advantages
 - Better alignment
 - Make it easier to line stuff up
- Red border around 9-patch
- Defines margin subtracted from clip bounds
- `android:layoutMode="opticalBounds"`



ATTENTION TO DETAIL

MM-DD-YYYY

YYYY-MM-DD

TYPOGRAPHY

Roboto **SUNGLASSES**

Self-driving robot ice cream truck

Fudgesicles only 25¢

ICE CREAM

Marshmallows & almonds

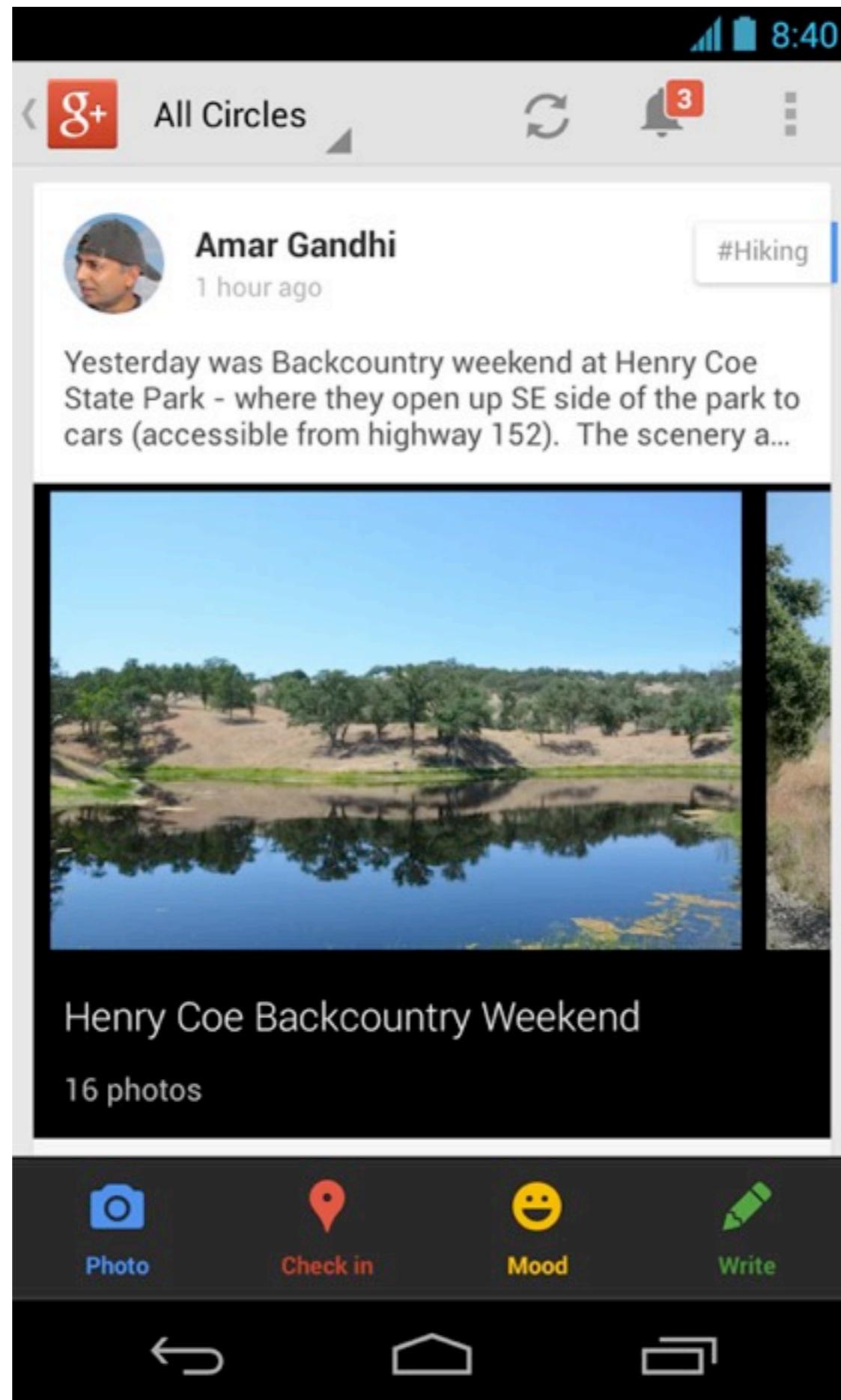
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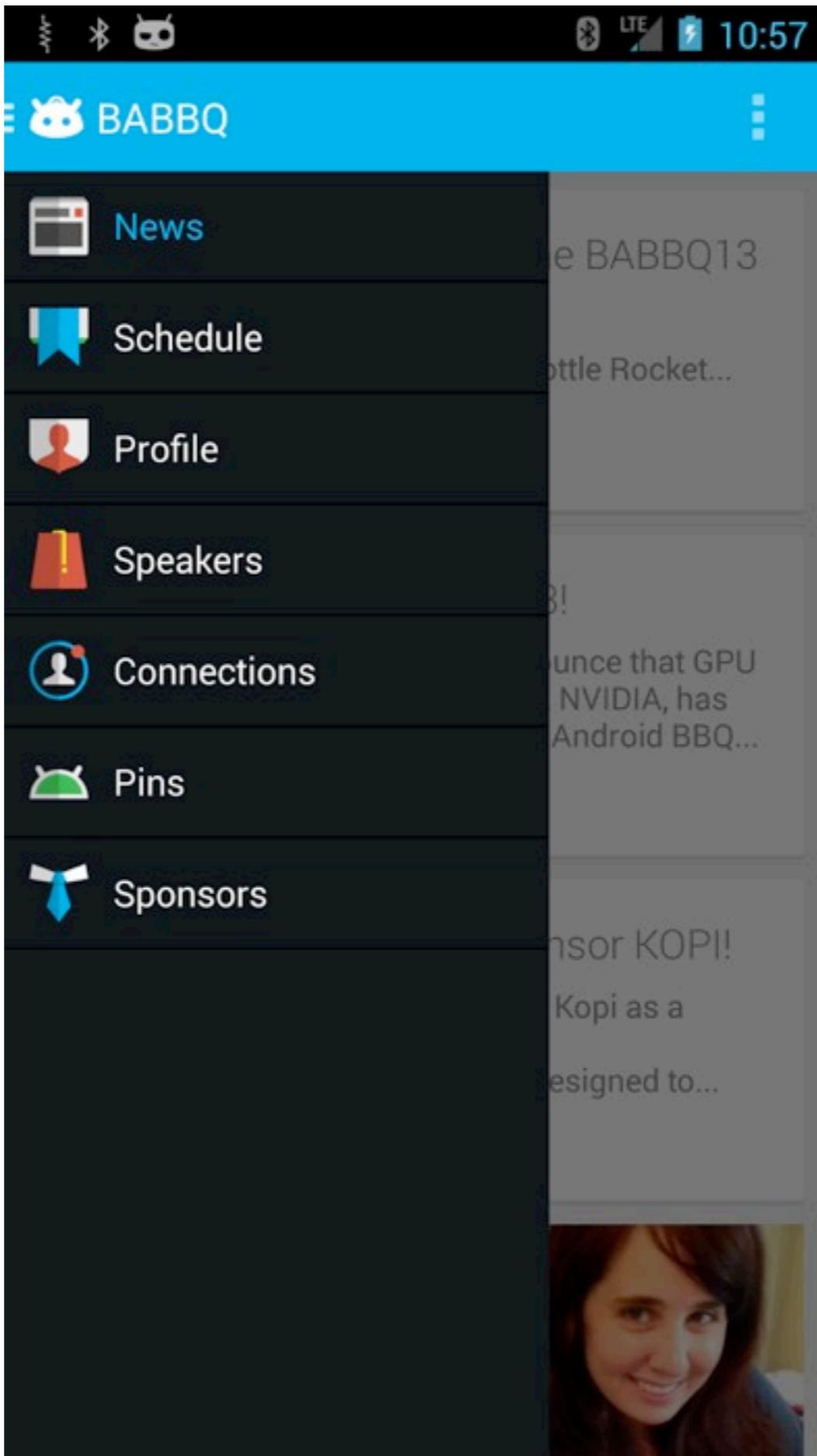
Music around the block

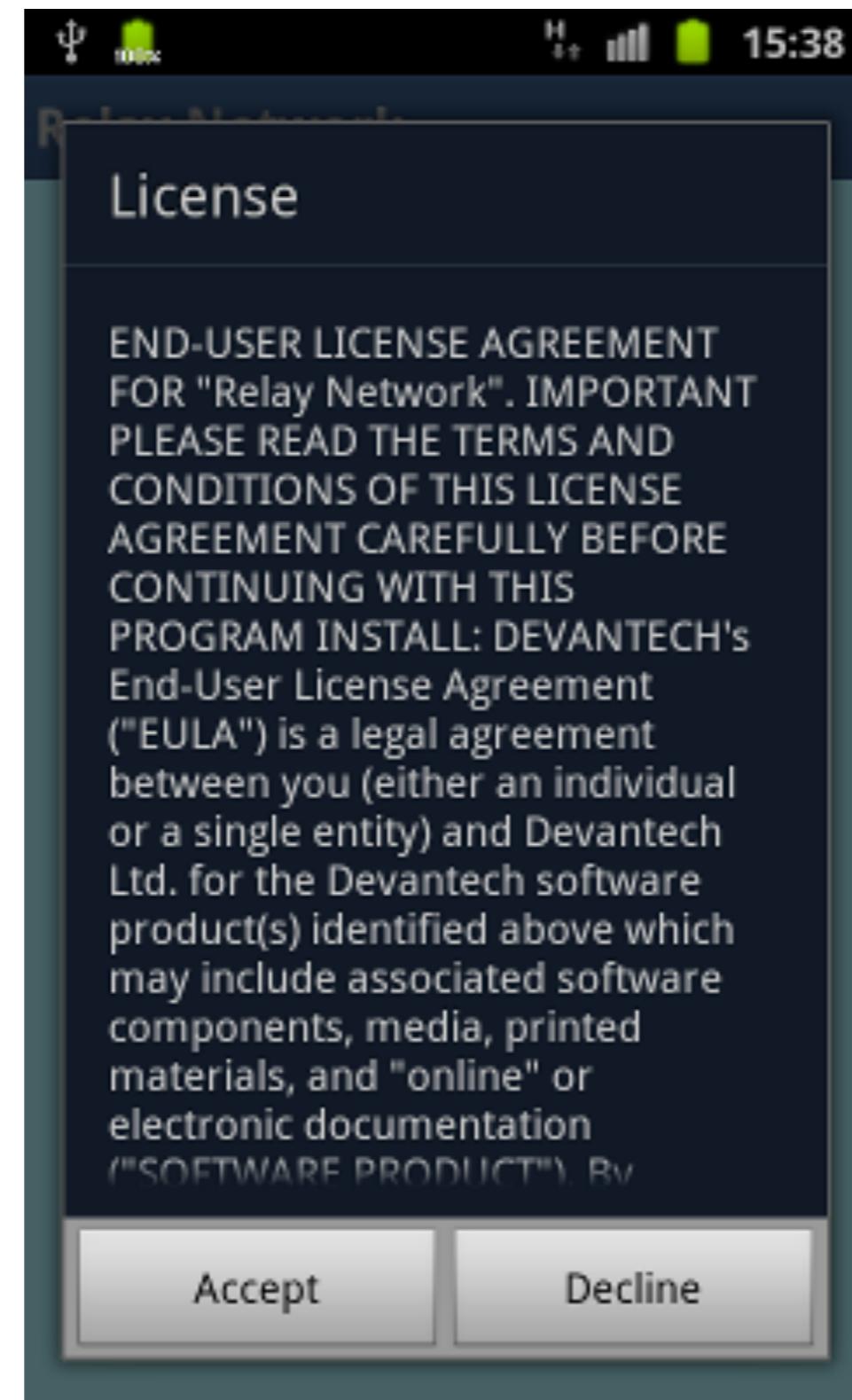
Summer heat rising up from the sidewalk

Custom fonts?

FIRST IMPRESSIONS



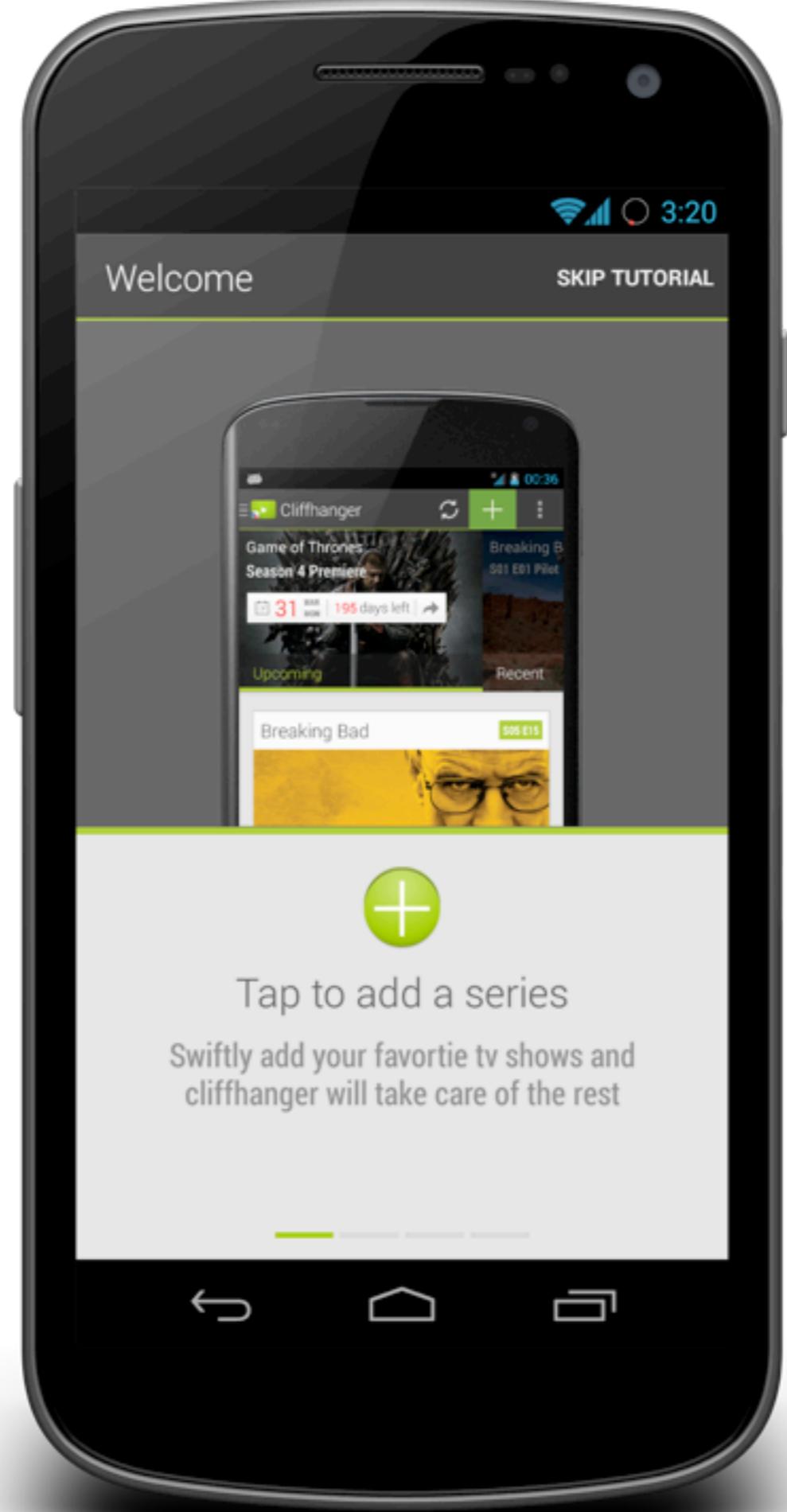


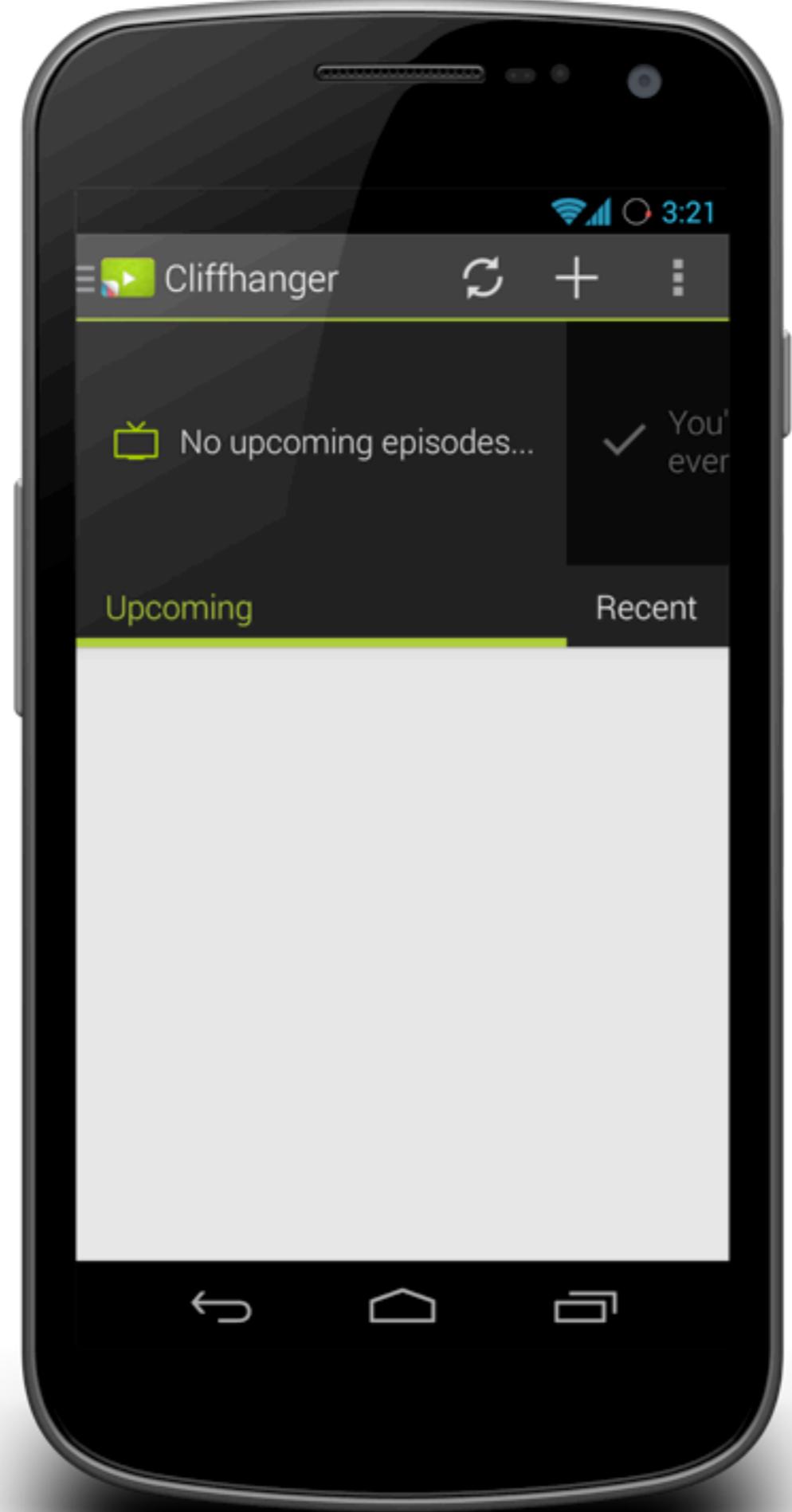


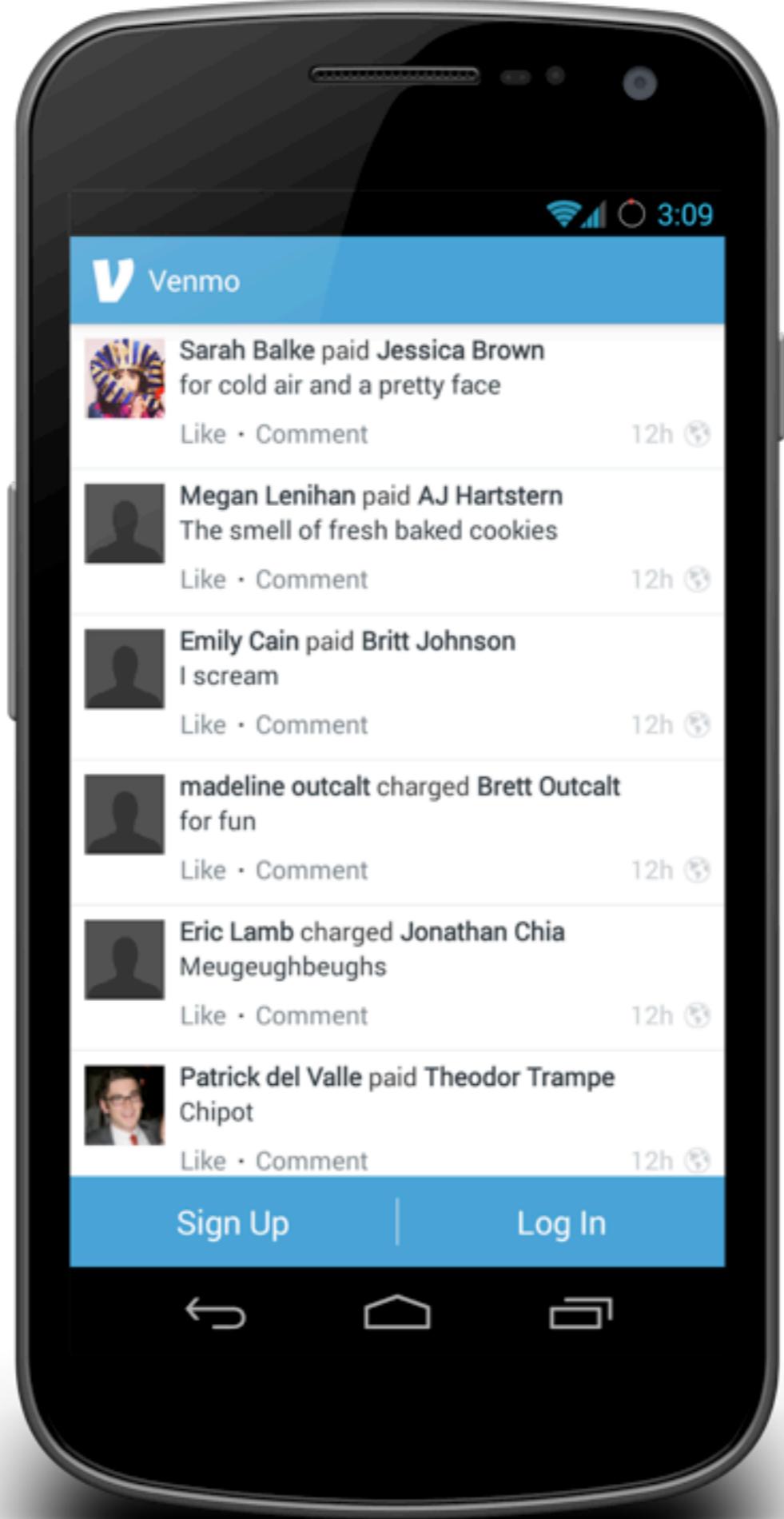
END-USER LICENSE AGREEMENT
FOR "Relay Network". IMPORTANT
PLEASE READ THE TERMS AND
CONDITIONS OF THIS LICENSE
AGREEMENT CAREFULLY BEFORE
CONTINUING WITH THIS
PROGRAM INSTALL: DEVANTECH's
End-User License Agreement
("EULA") is a legal agreement
between you (either an individual
or a single entity) and Devantech
Ltd. for the Devantech software
product(s) identified above which
may include associated software
components, media, printed
materials, and "online" or
electronic documentation
("SOFTWARE PRODUCT"). By

Accept

Decline





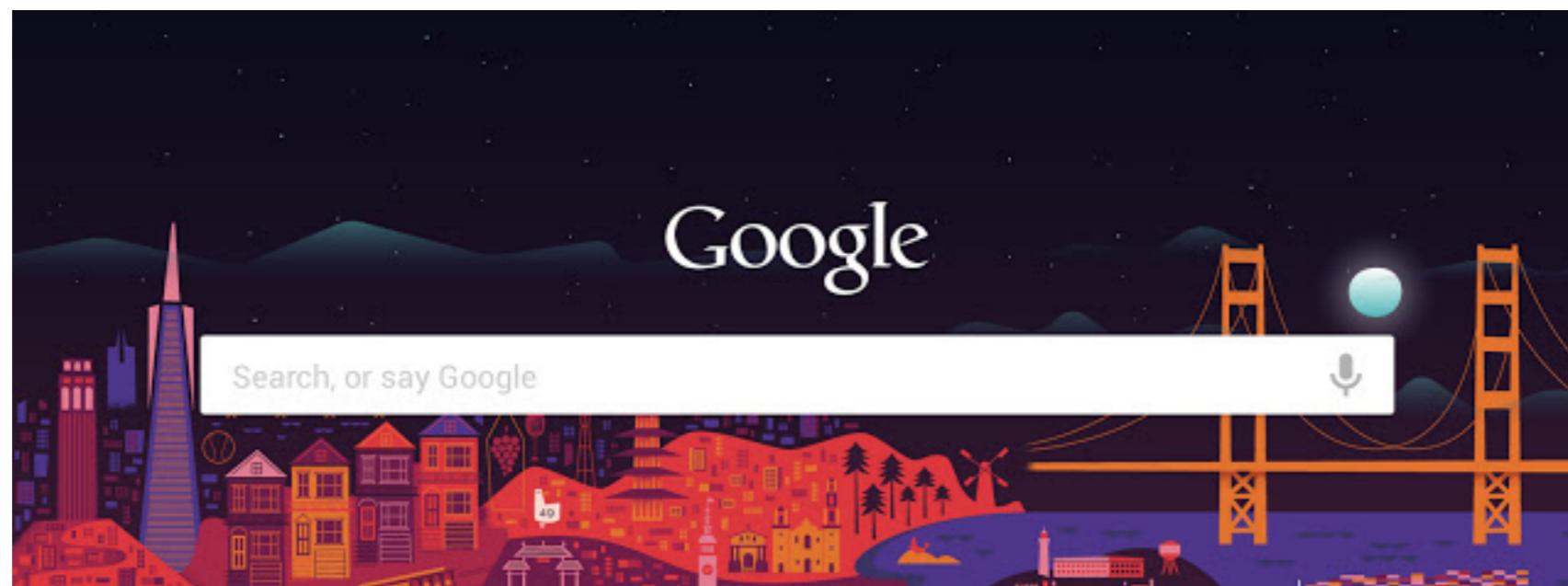


SURPRISE & DELIGHT









FEEDBACK IS CRITICAL

KNOW YOUR AUDIENCE

**PUTTING IT ALL
TOGETHER**

89

Stephanie Garvey Photography



Maternity & Babies

You can never be fully prepared for how our reality changes when you welcome new life. My photographs give reverence to the radiance, changes, joy and bond that encompasses mother and child from womb

My passion is to make
memories full of love





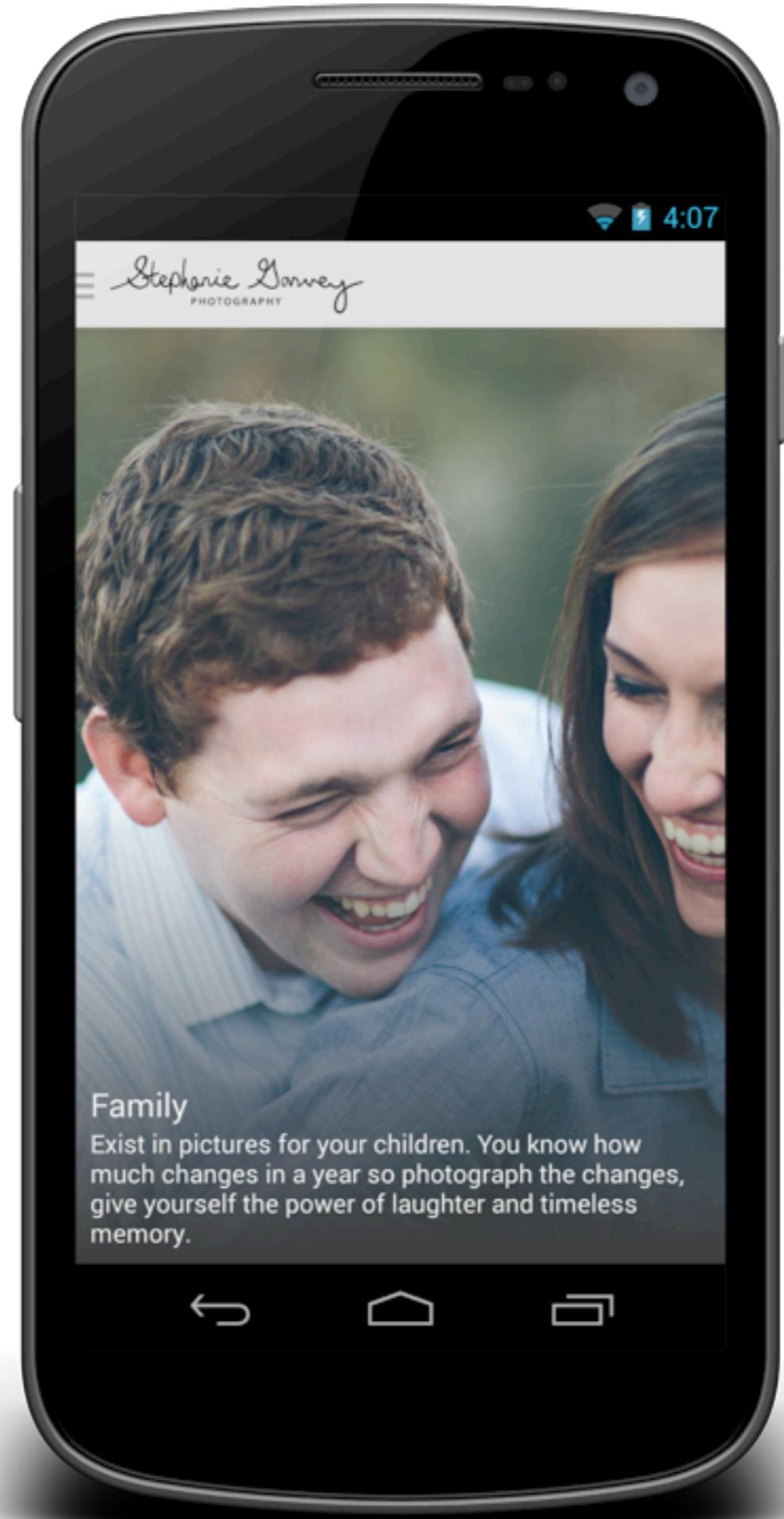
Maternity & Babies

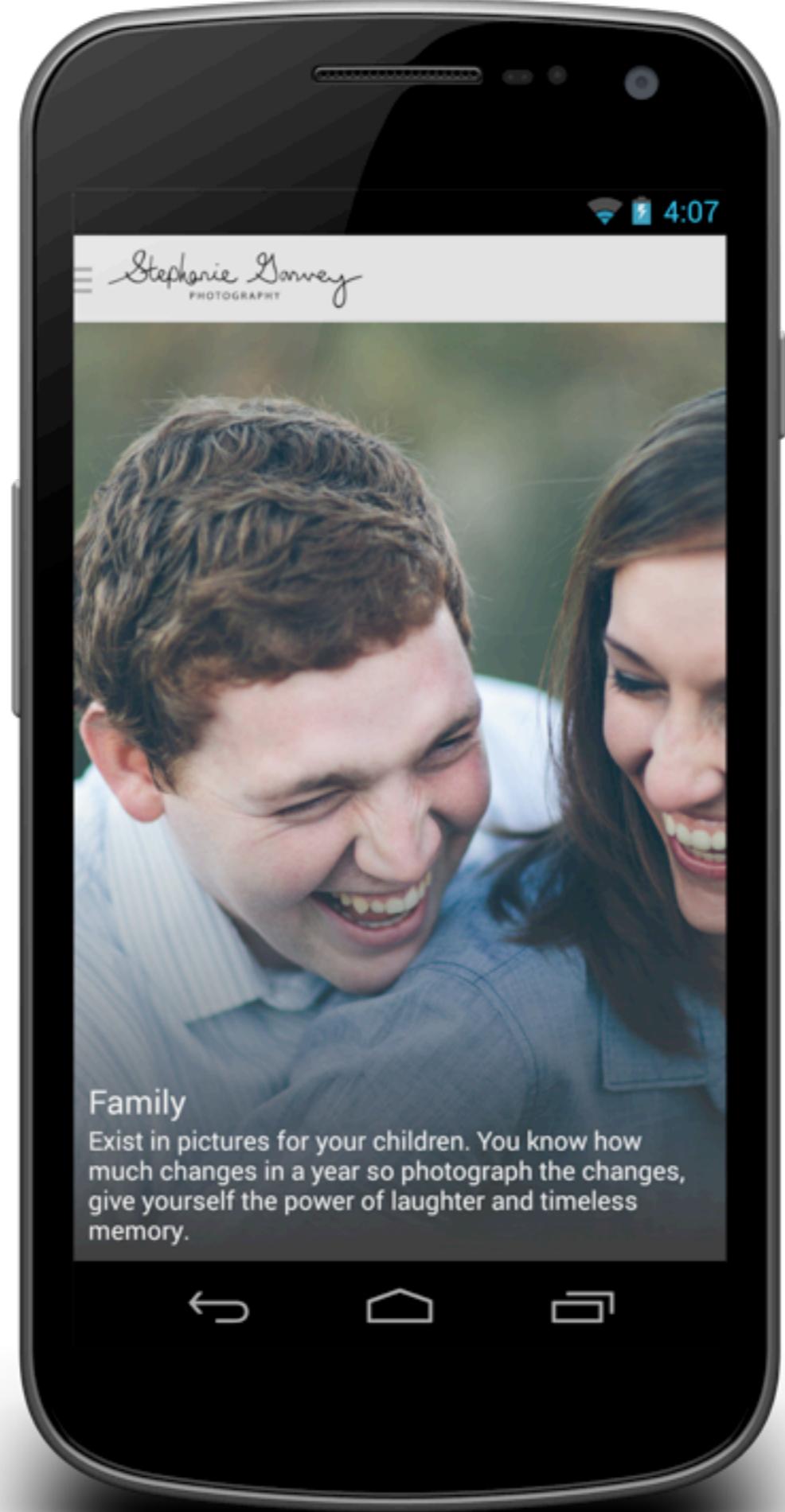
You can never be fully prepared for how our reality changes when you welcome new life. My photographs give reverence to the radiance, changes, joy and bond that encompasses mother and child from womb

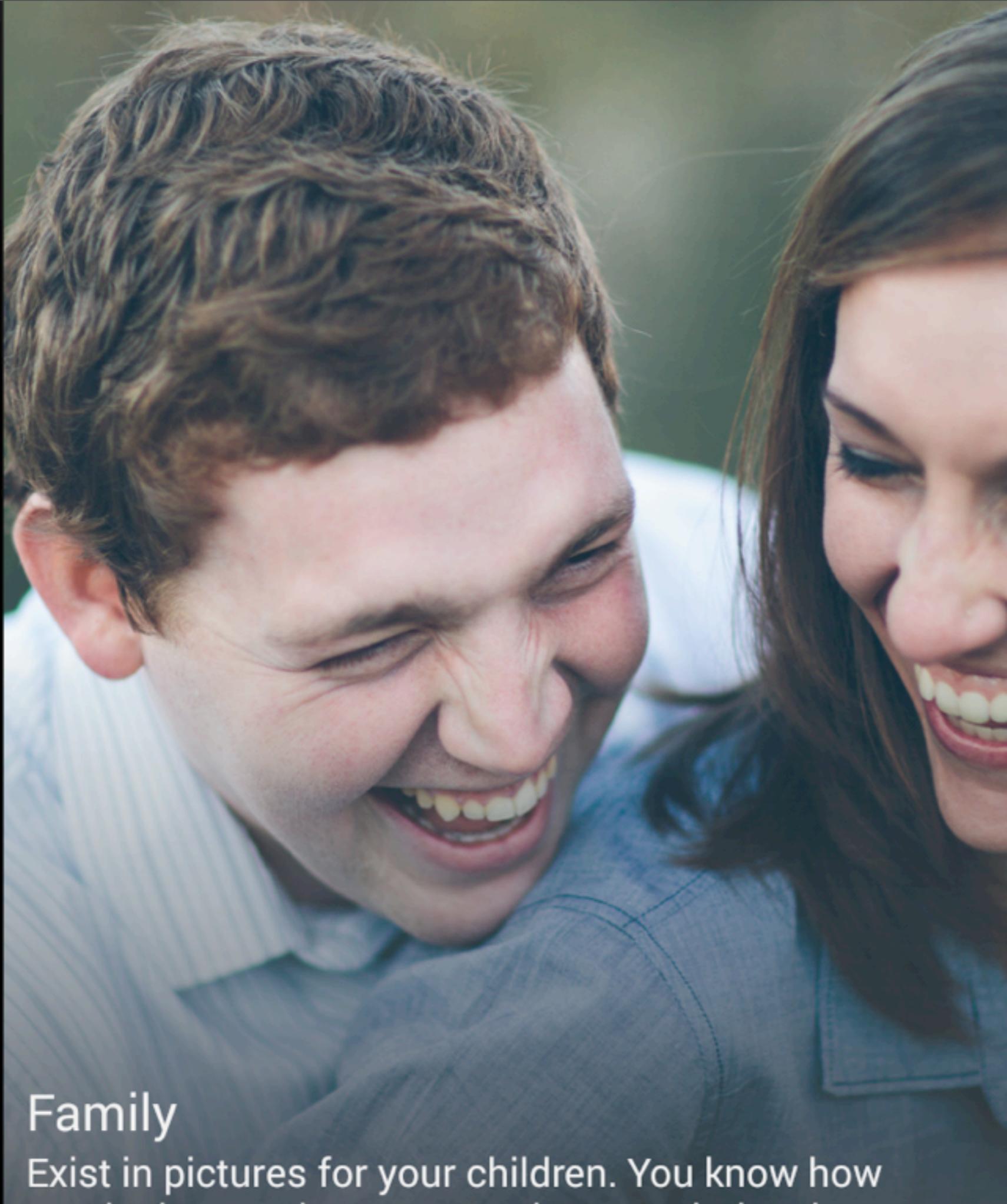


My passion is to make photographs full of real emotion, so you can have real memories.

I am happily married to my incredibly talented husband of 9 years and grateful to be a







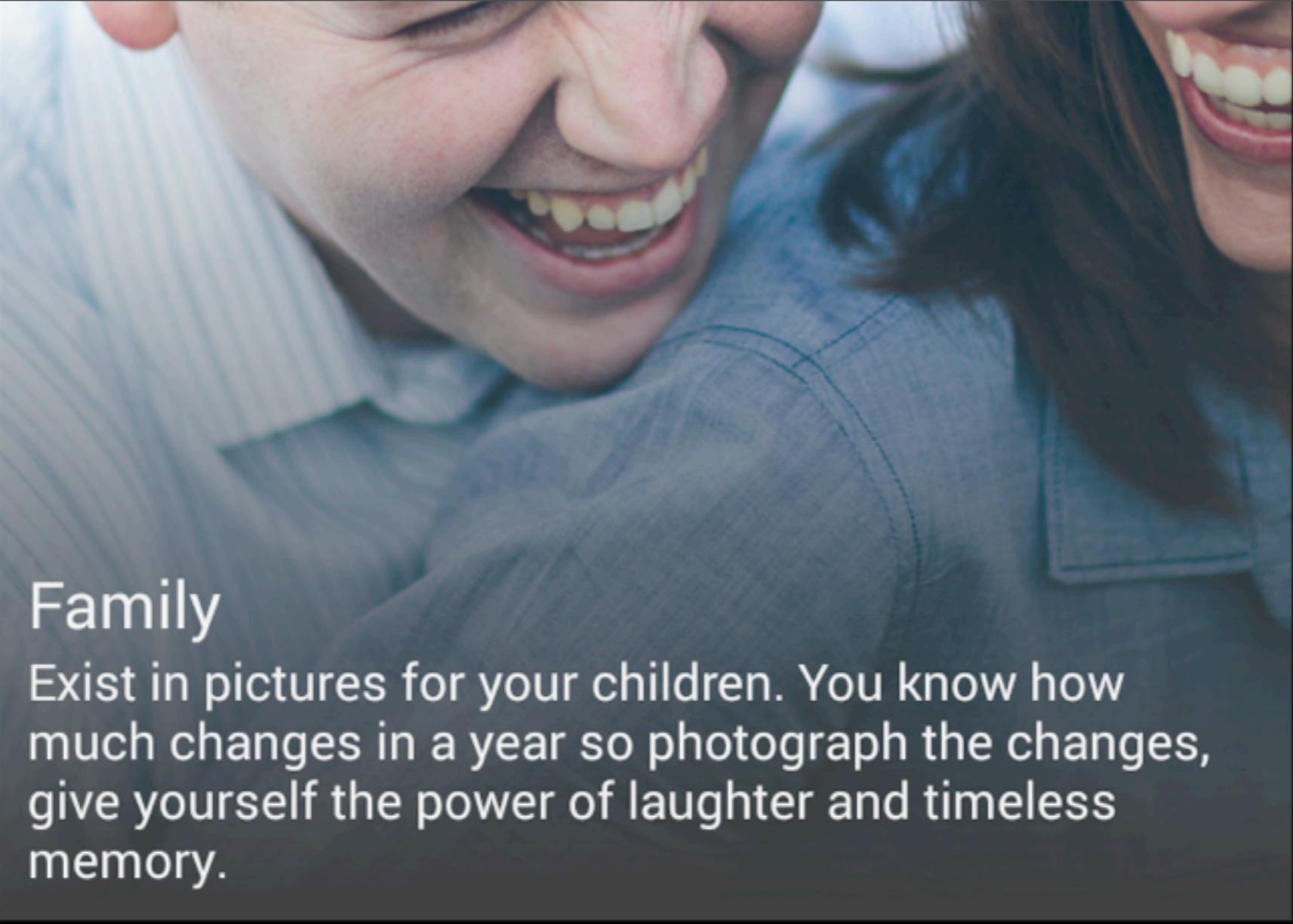
Family

Exist in pictures for your children. You know how



Family

Exist in pictures for your children. You know how



Family

Exist in pictures for your children. You know how much changes in a year so photograph the changes, give yourself the power of laughter and timeless memory.

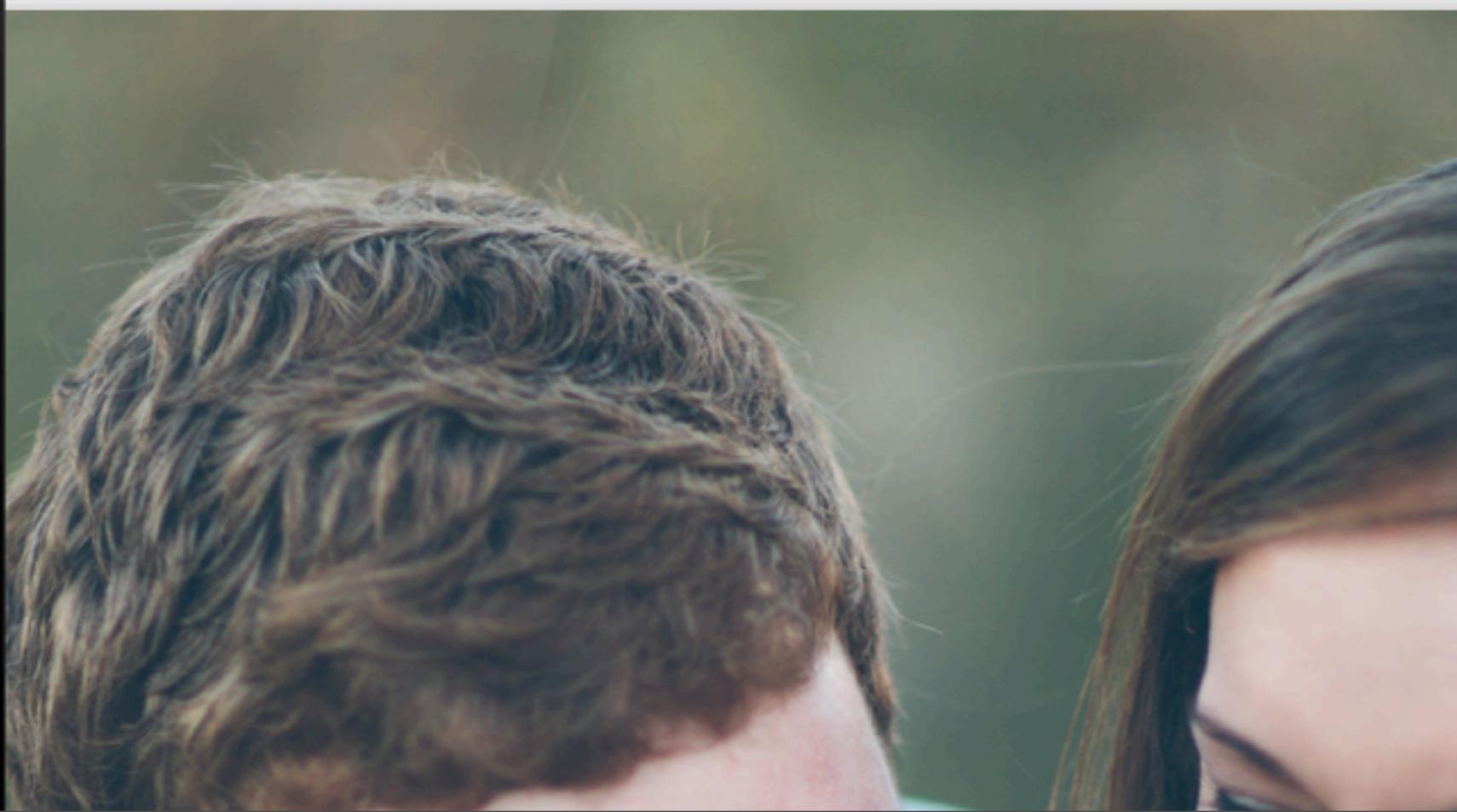


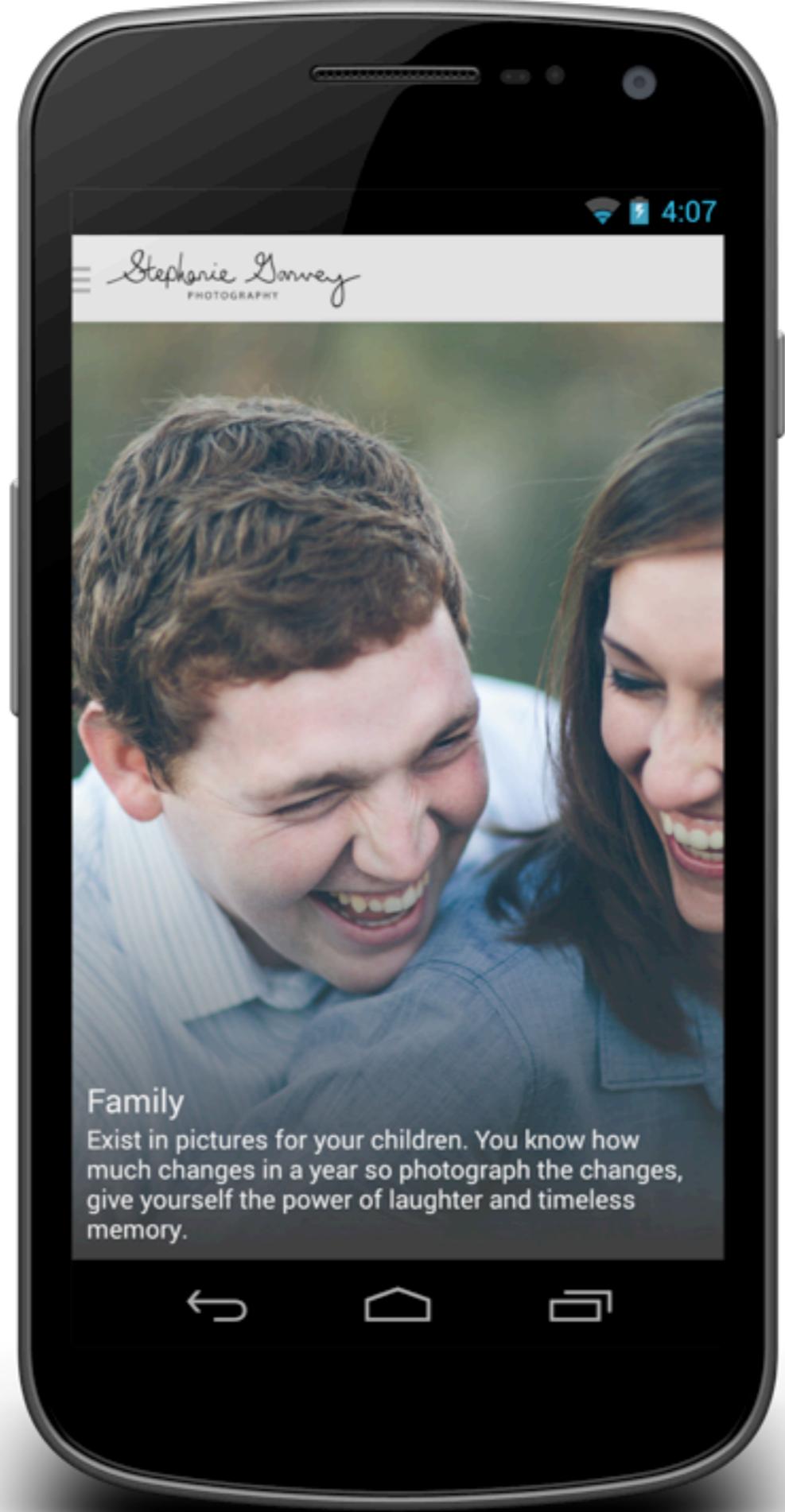


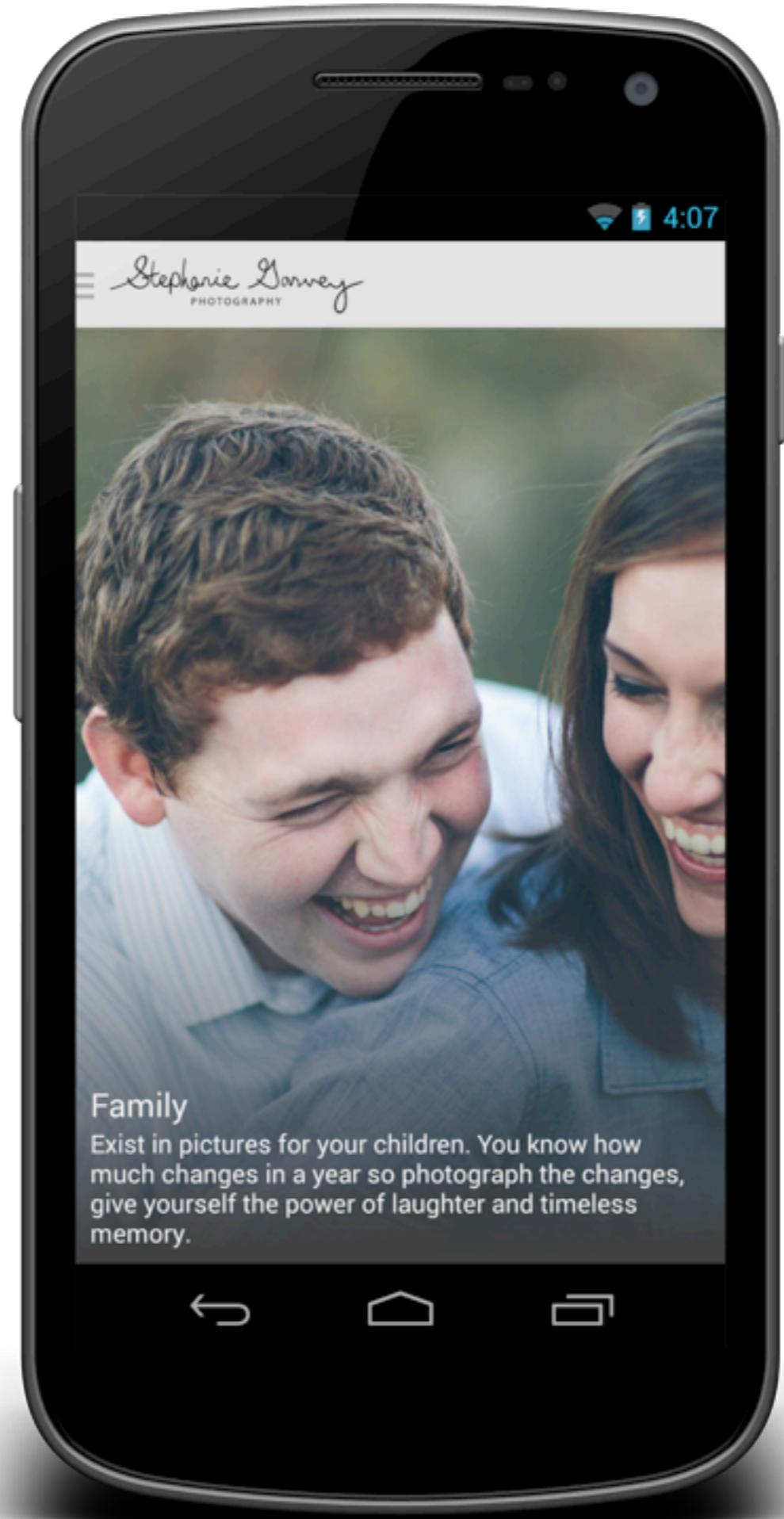
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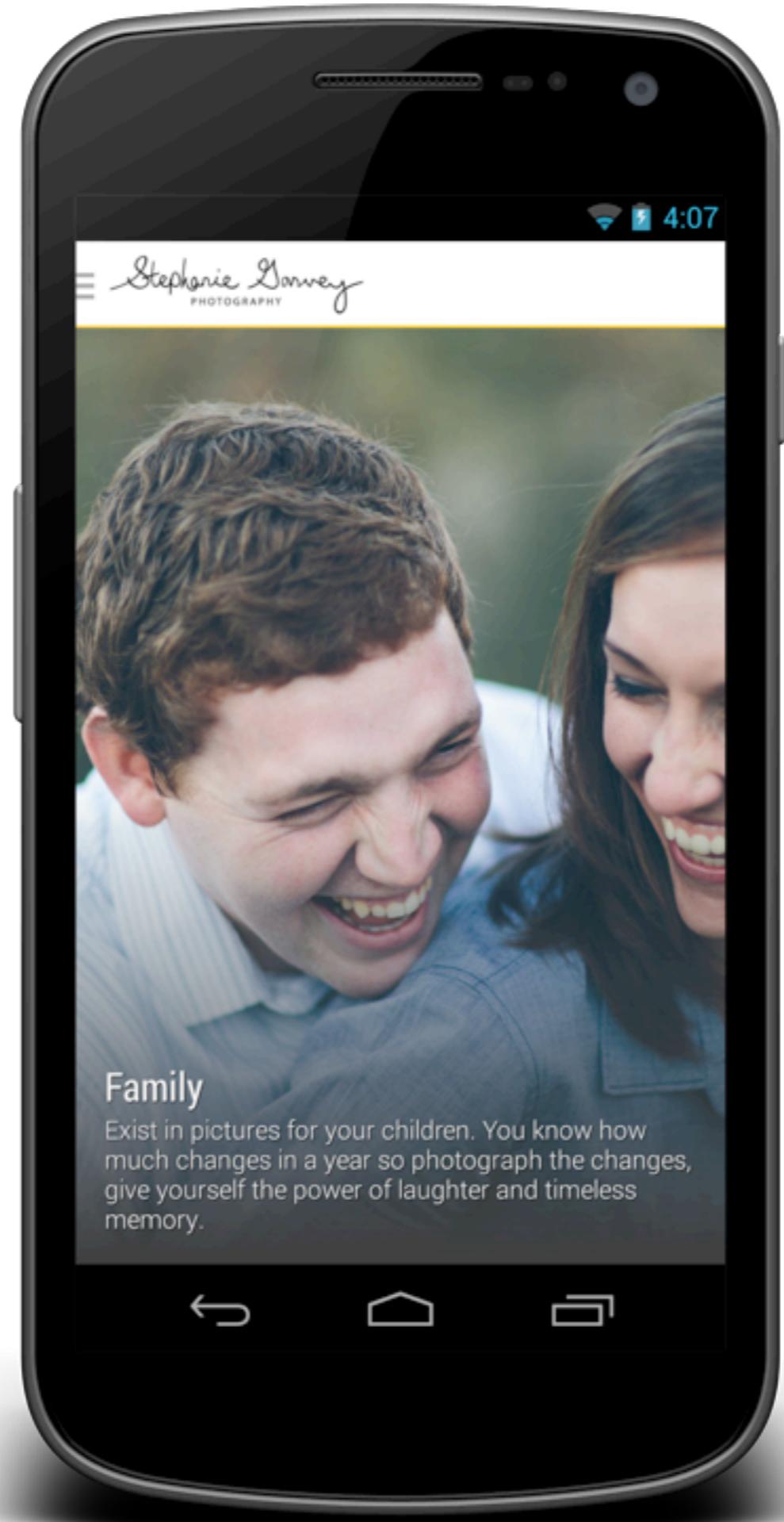
Stephanie Garvey

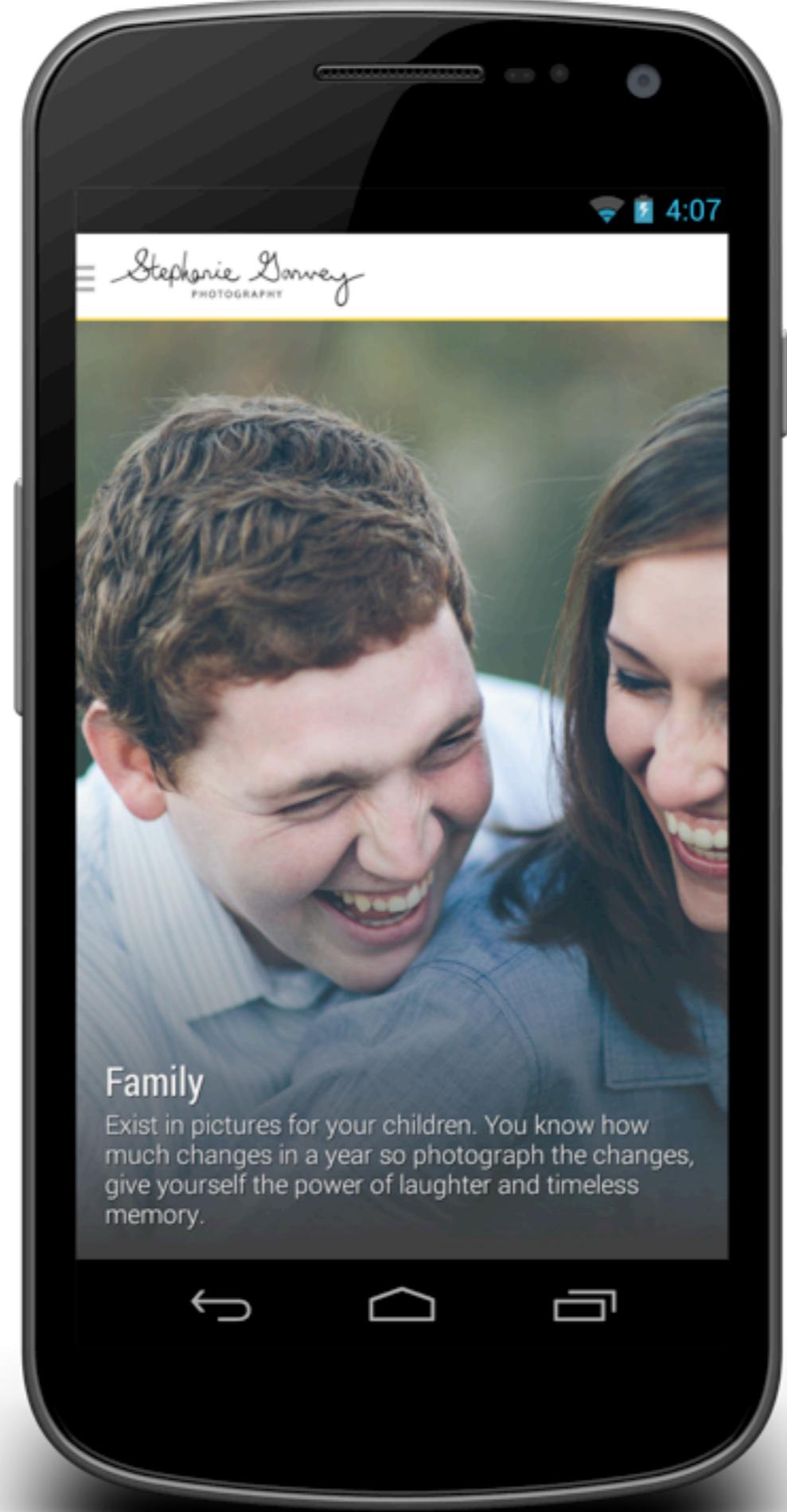
PHOTOGRAPHY













Family

Exist in pictures for your children. You know how much changes in a year so photograph the changes, give yourself the power of laughter and timeless memory.





Family

Exist in pictures for your children. You know how much changes in a year so photograph the changes, give yourself the power of laughter and timeless memory.

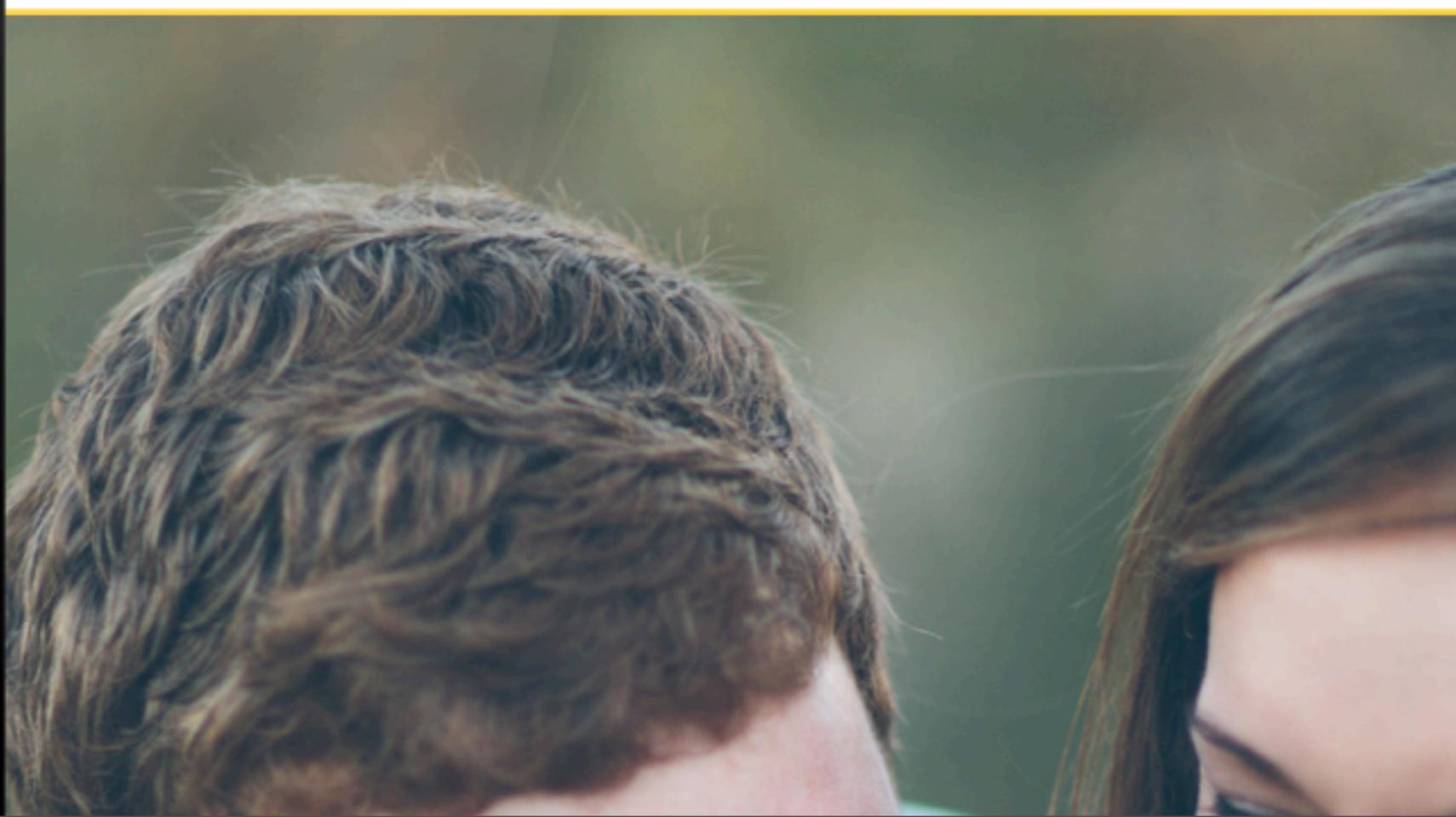


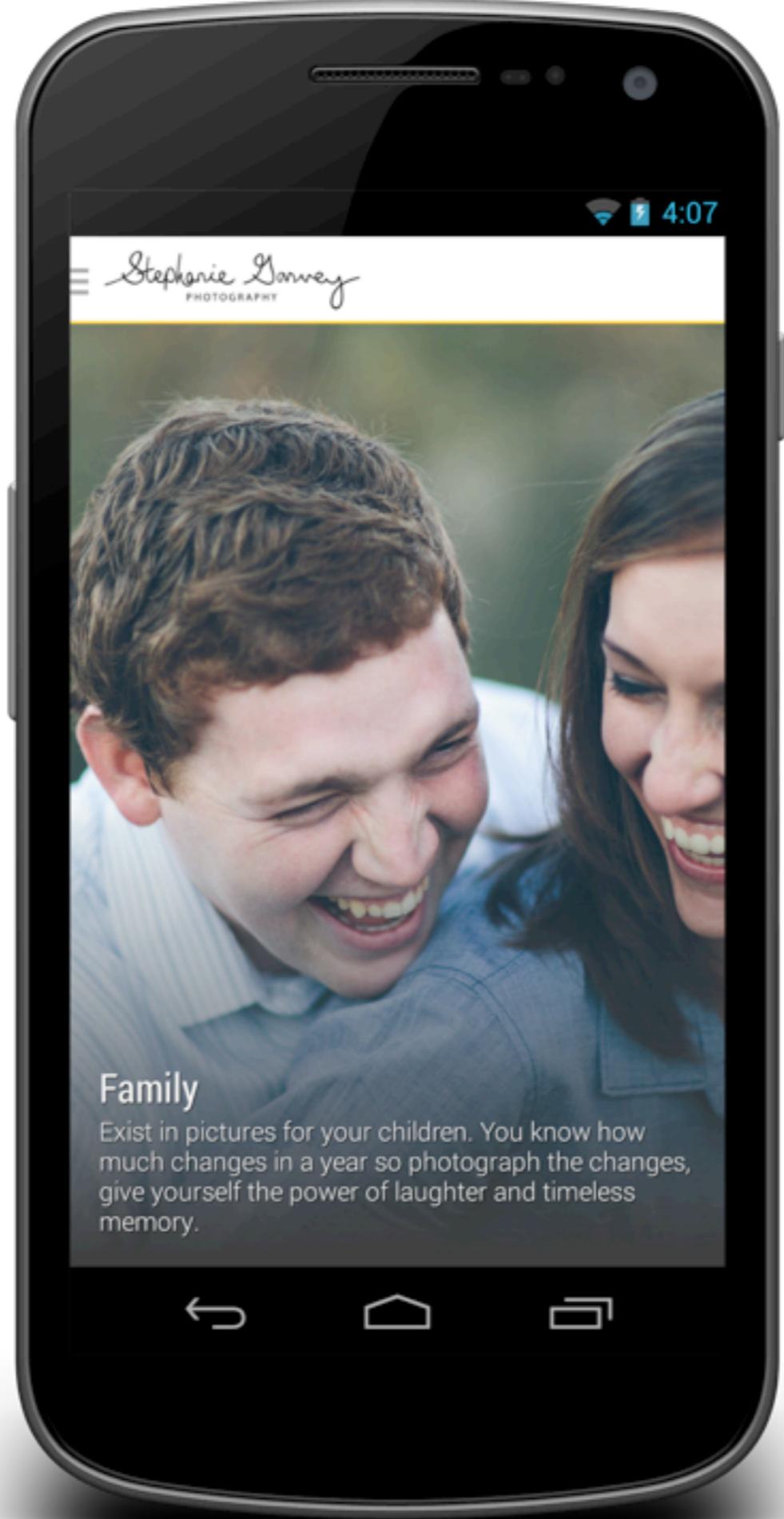


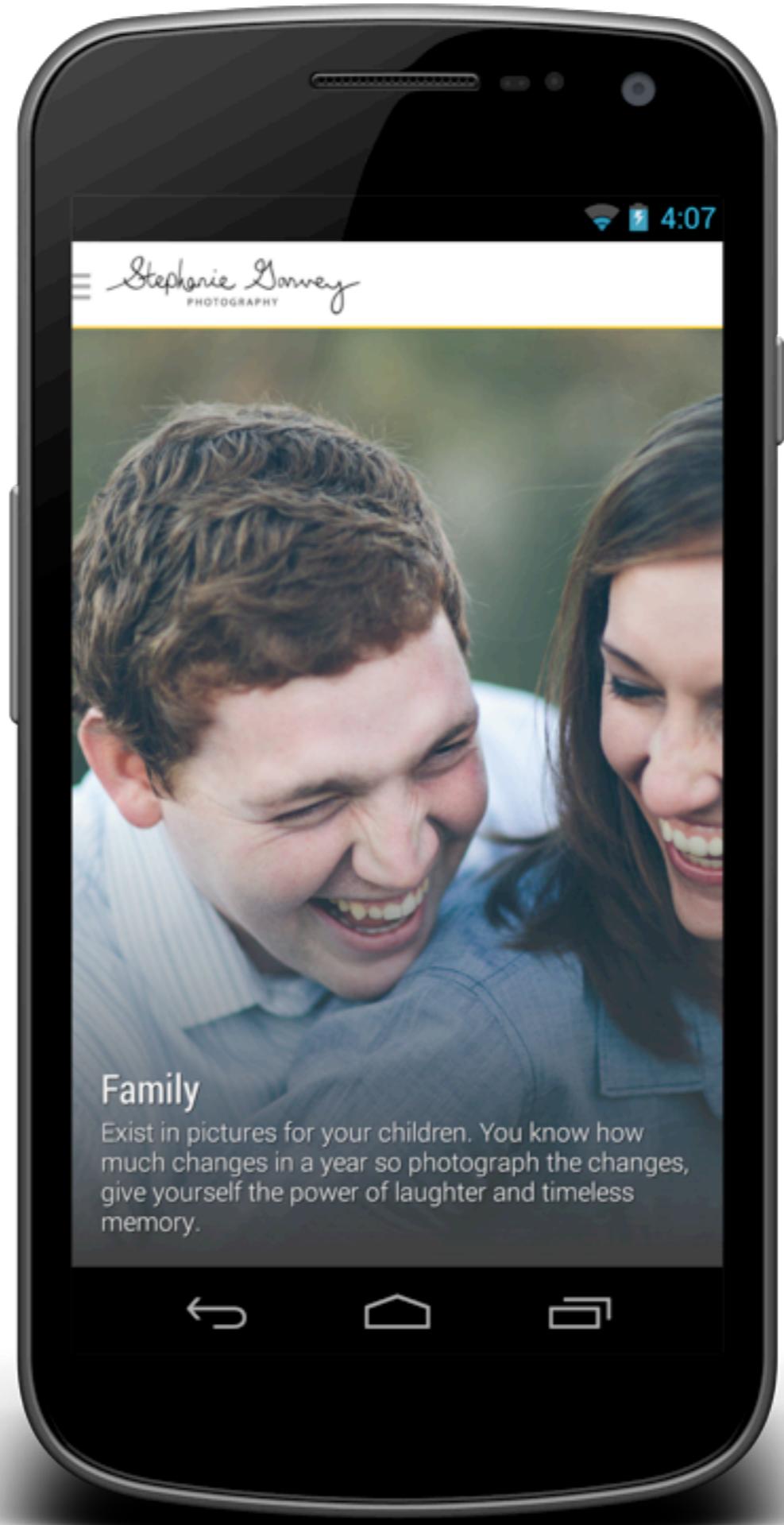
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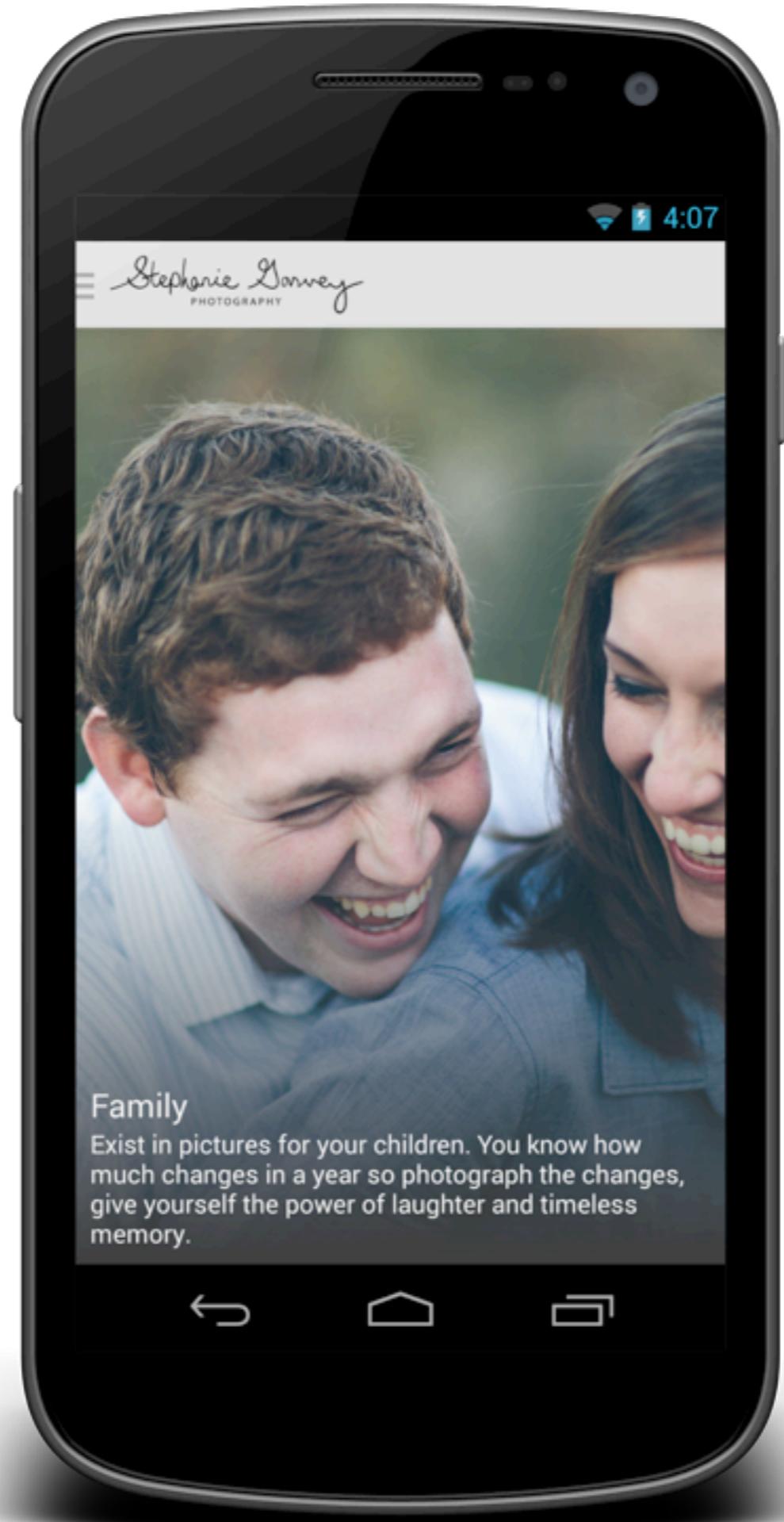
Stephanie Garvey

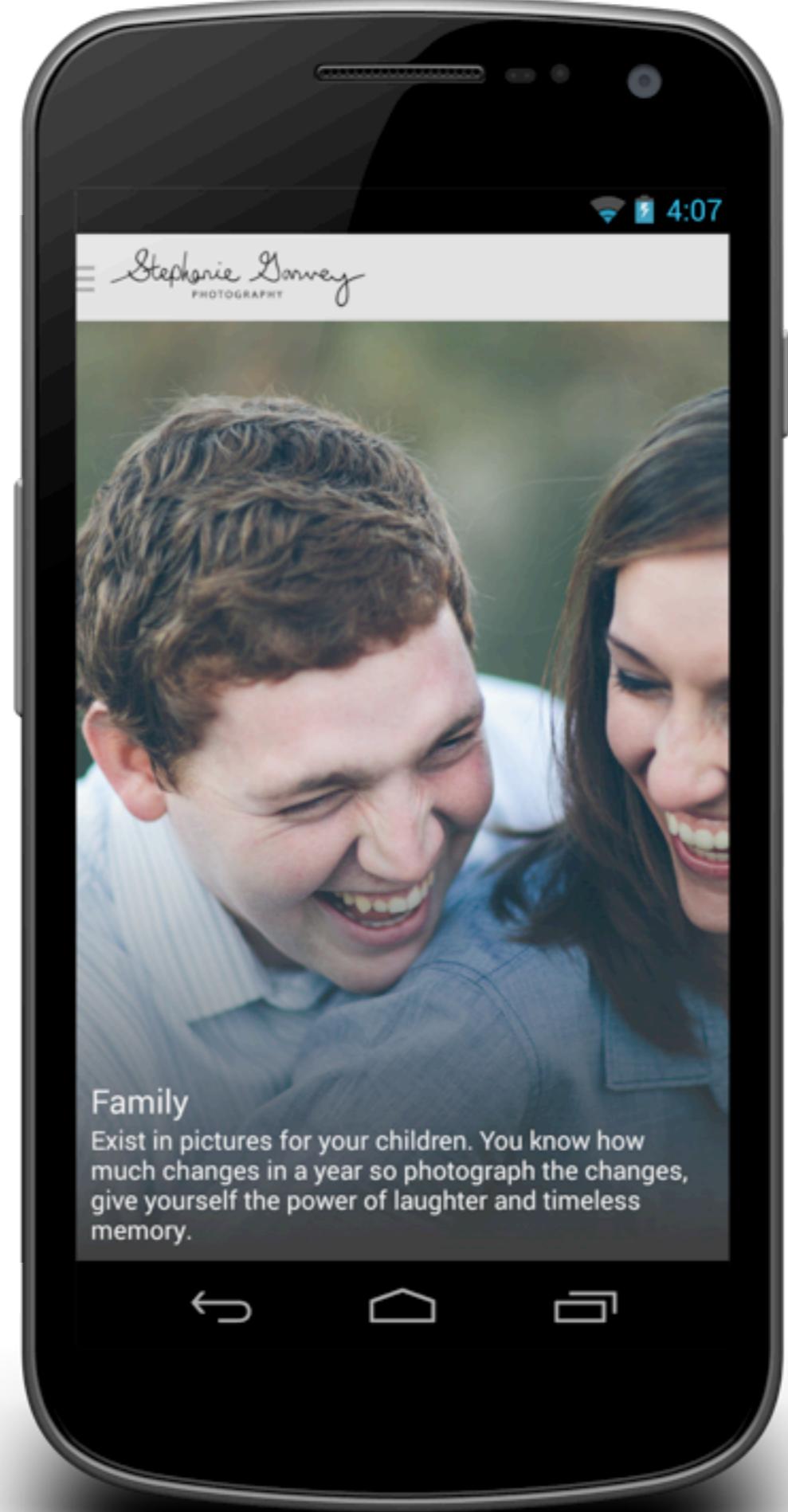
PHOTOGRAPHY

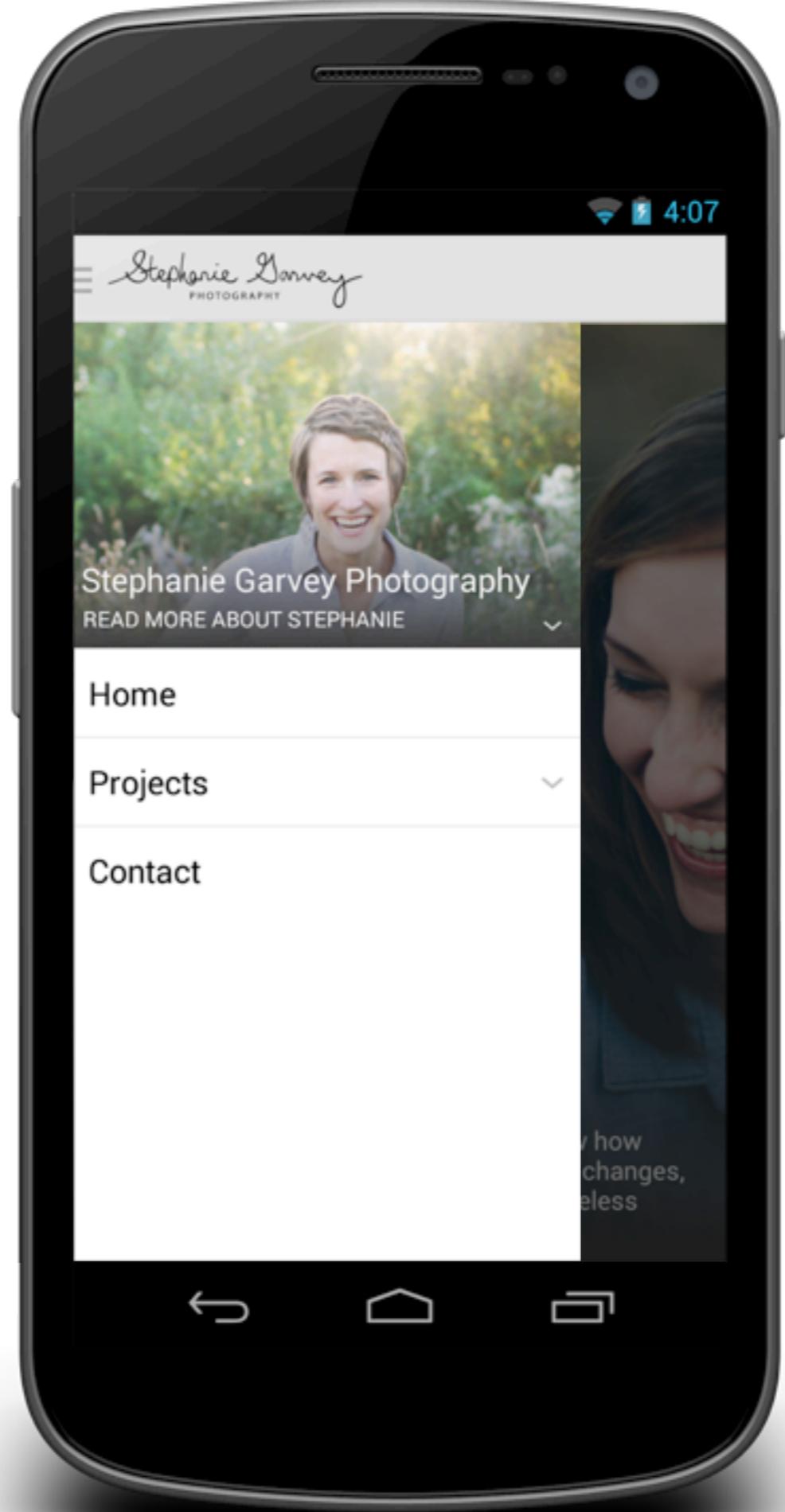


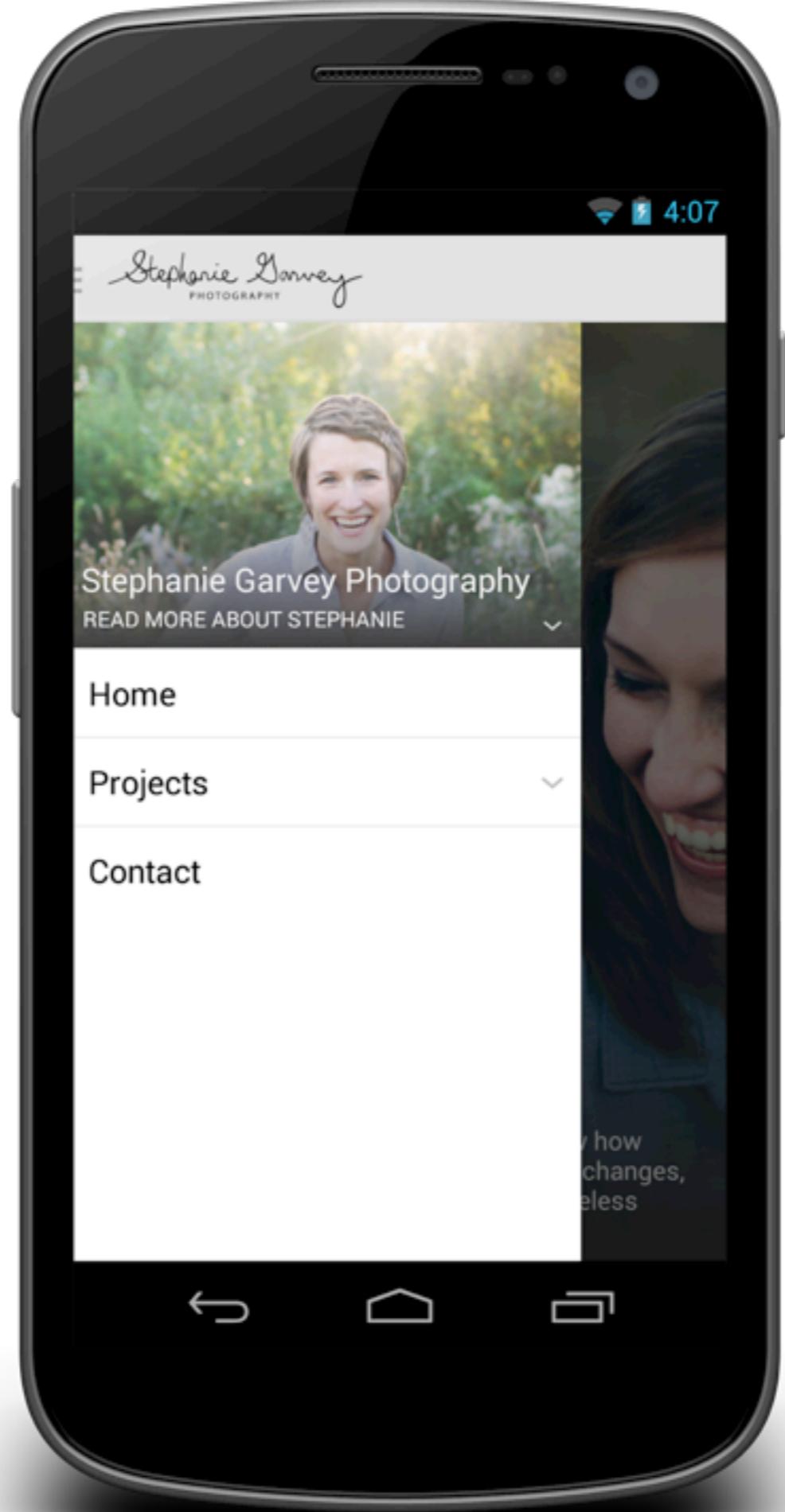








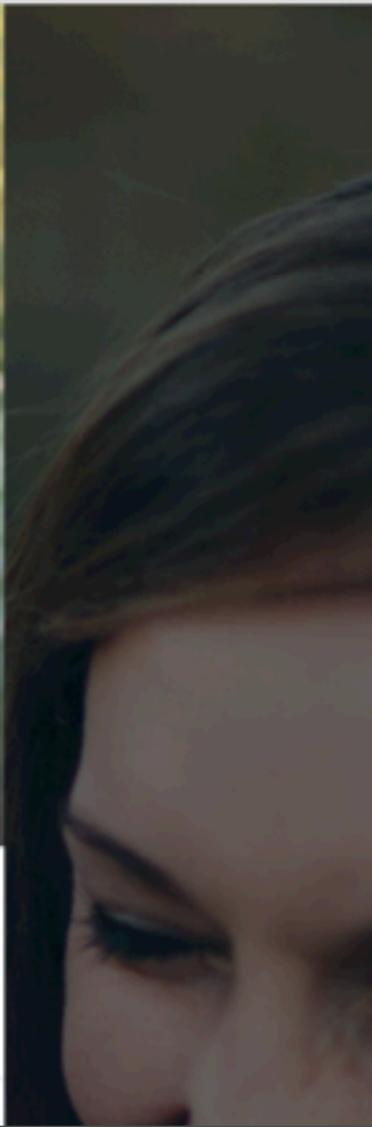
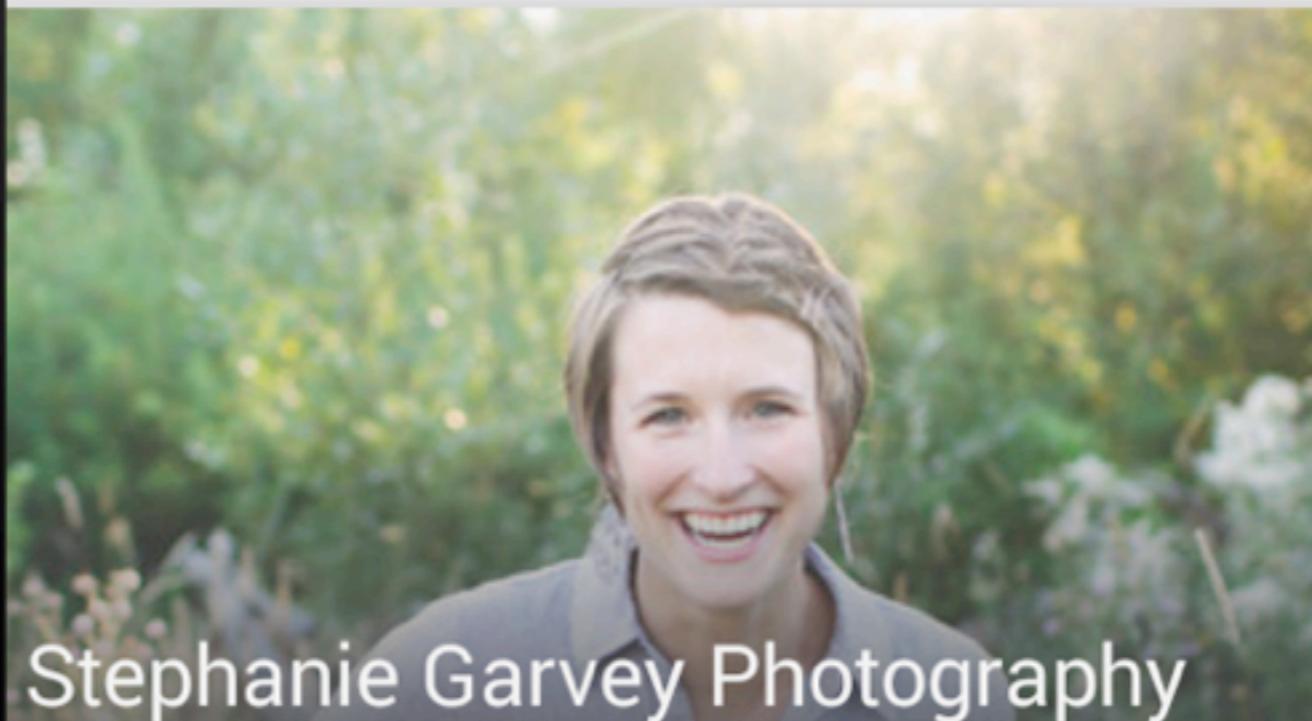






4:07

Stephanie Garvey
PHOTOGRAPHY

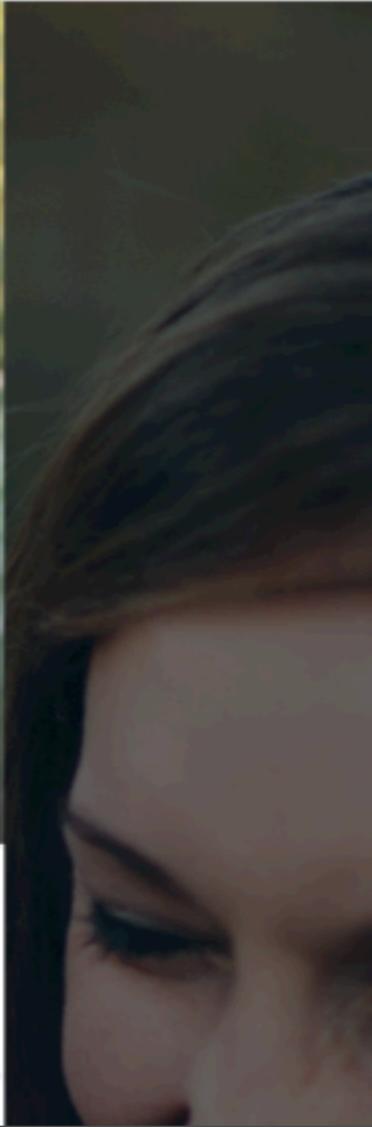
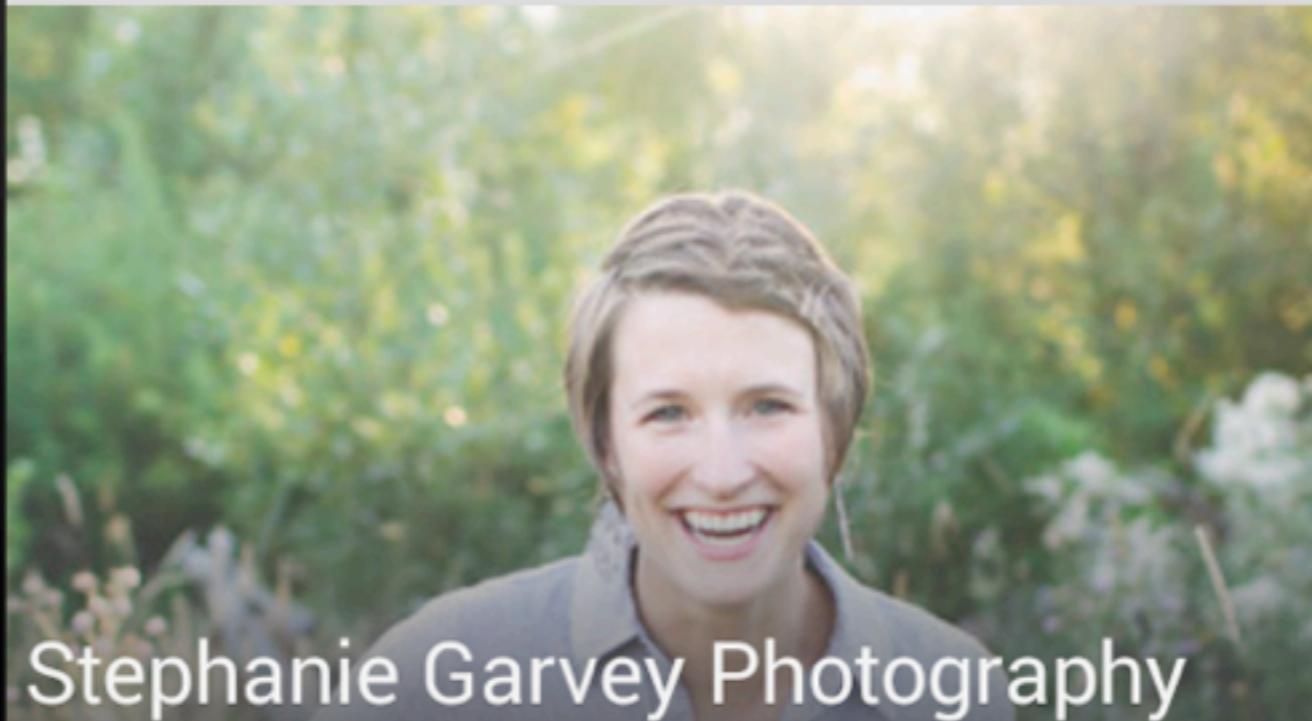


Home

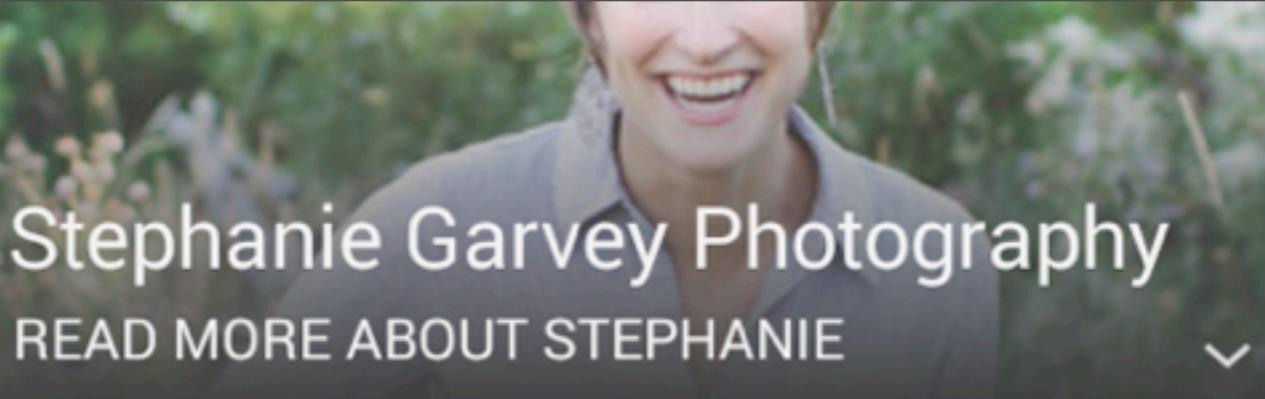


4:07

Stephanie Garvey
PHOTOGRAPHY

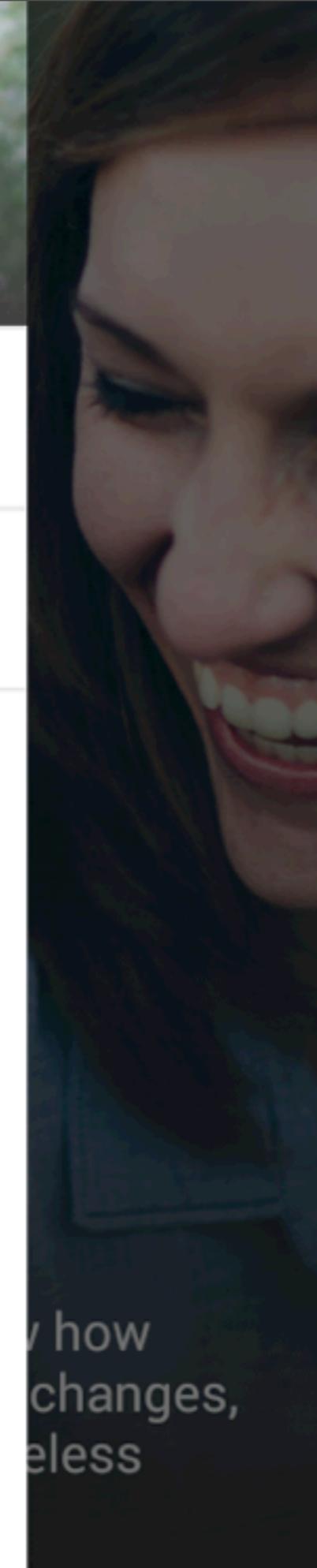


Home



Stephanie Garvey Photography

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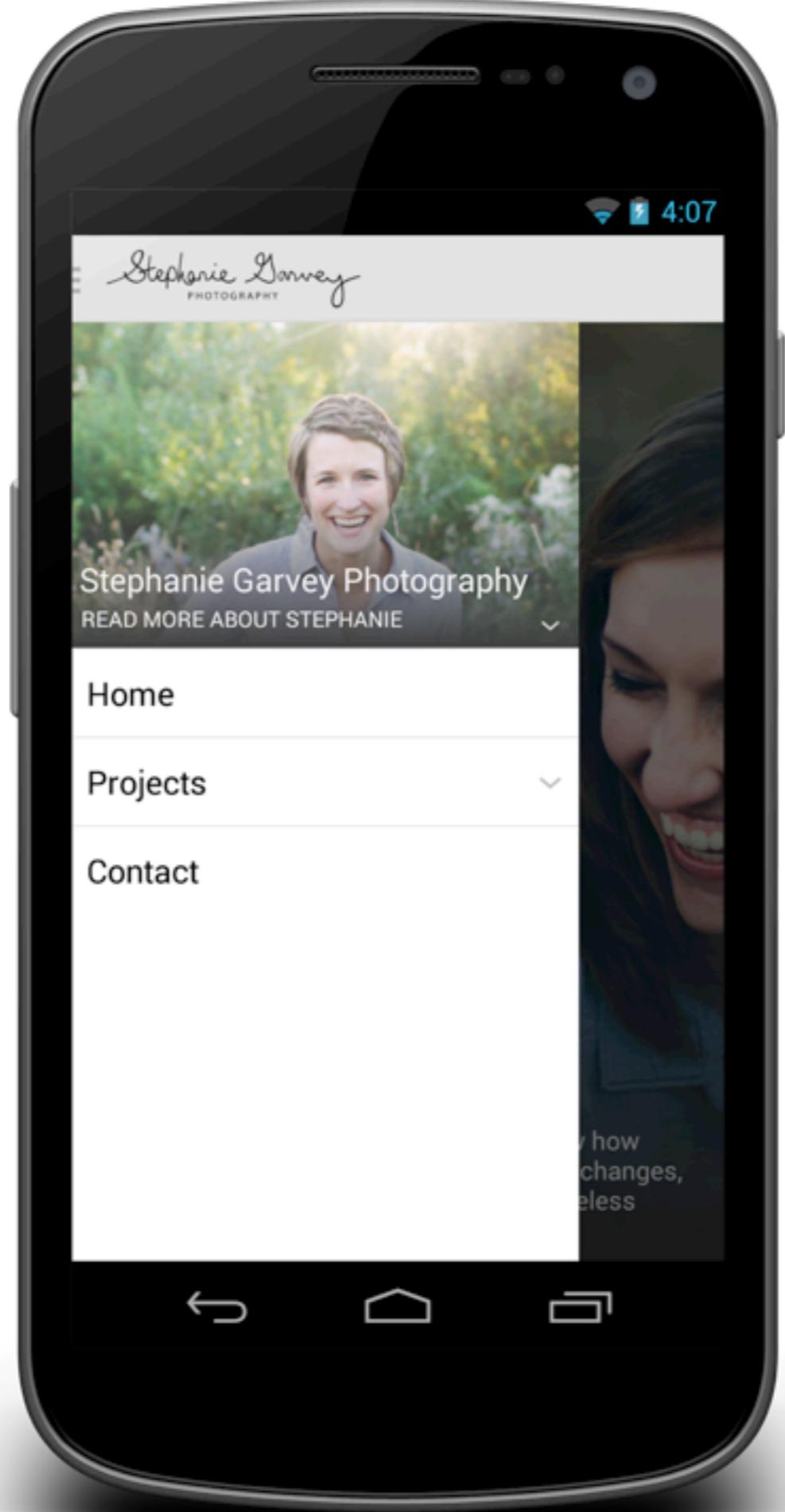


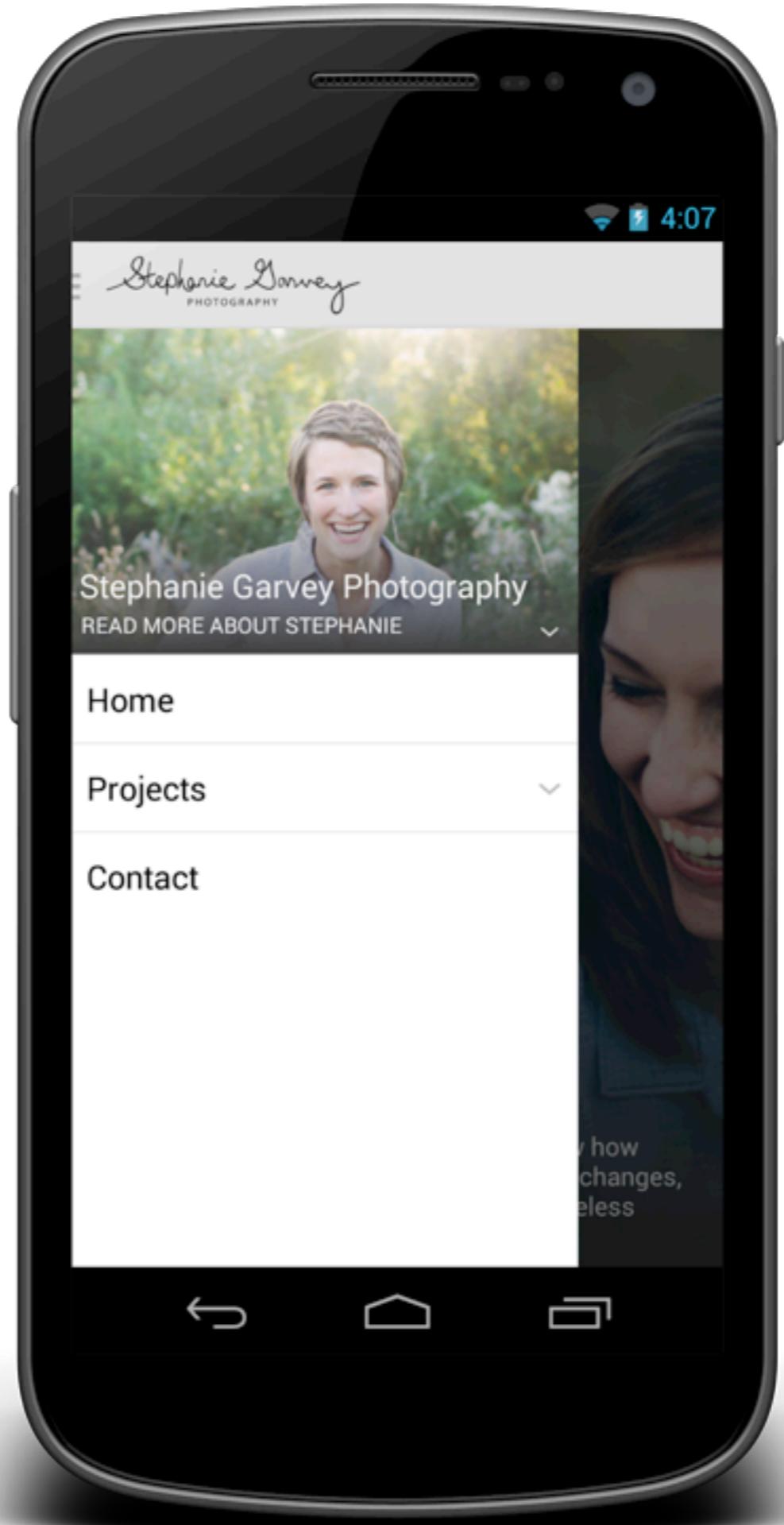
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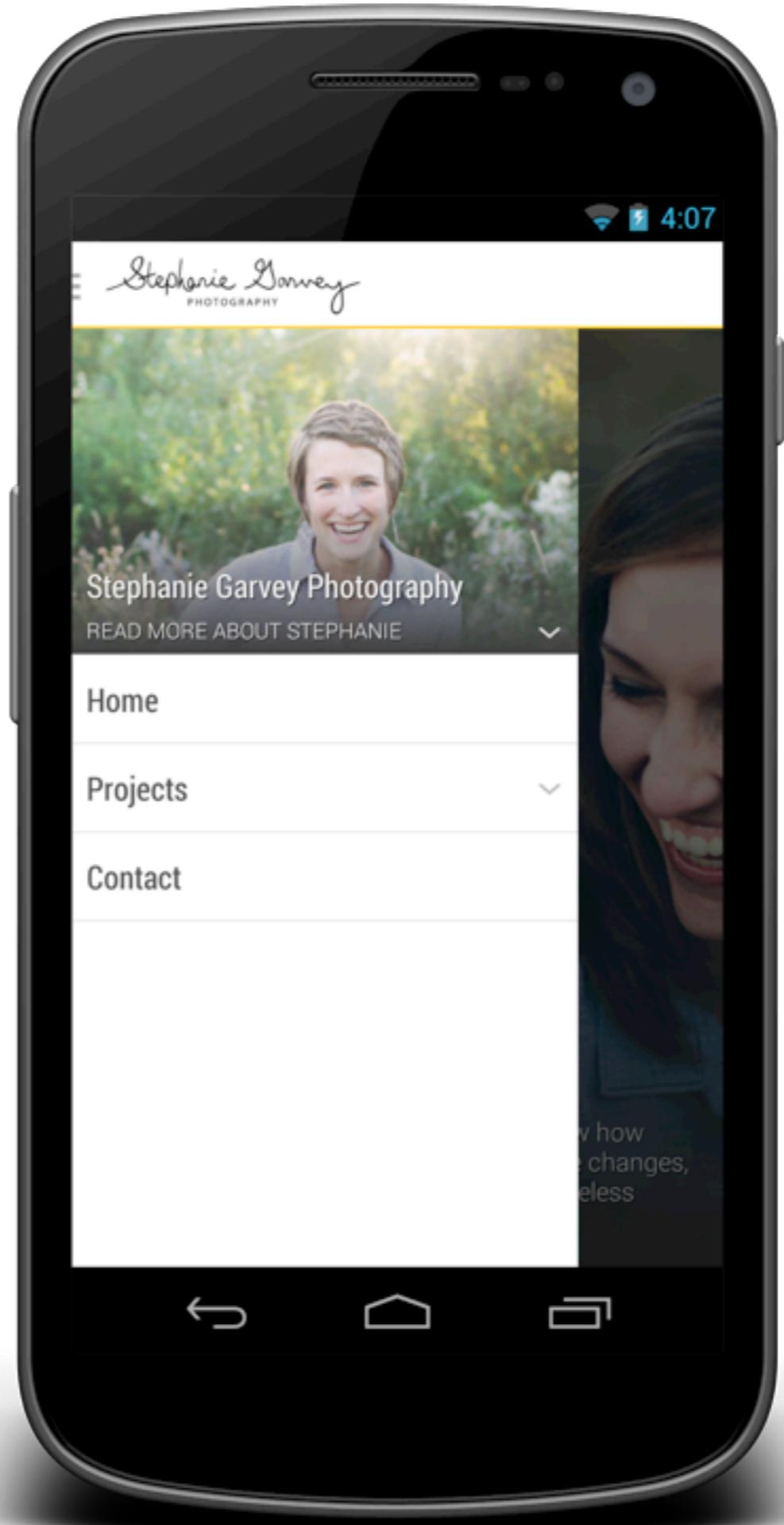


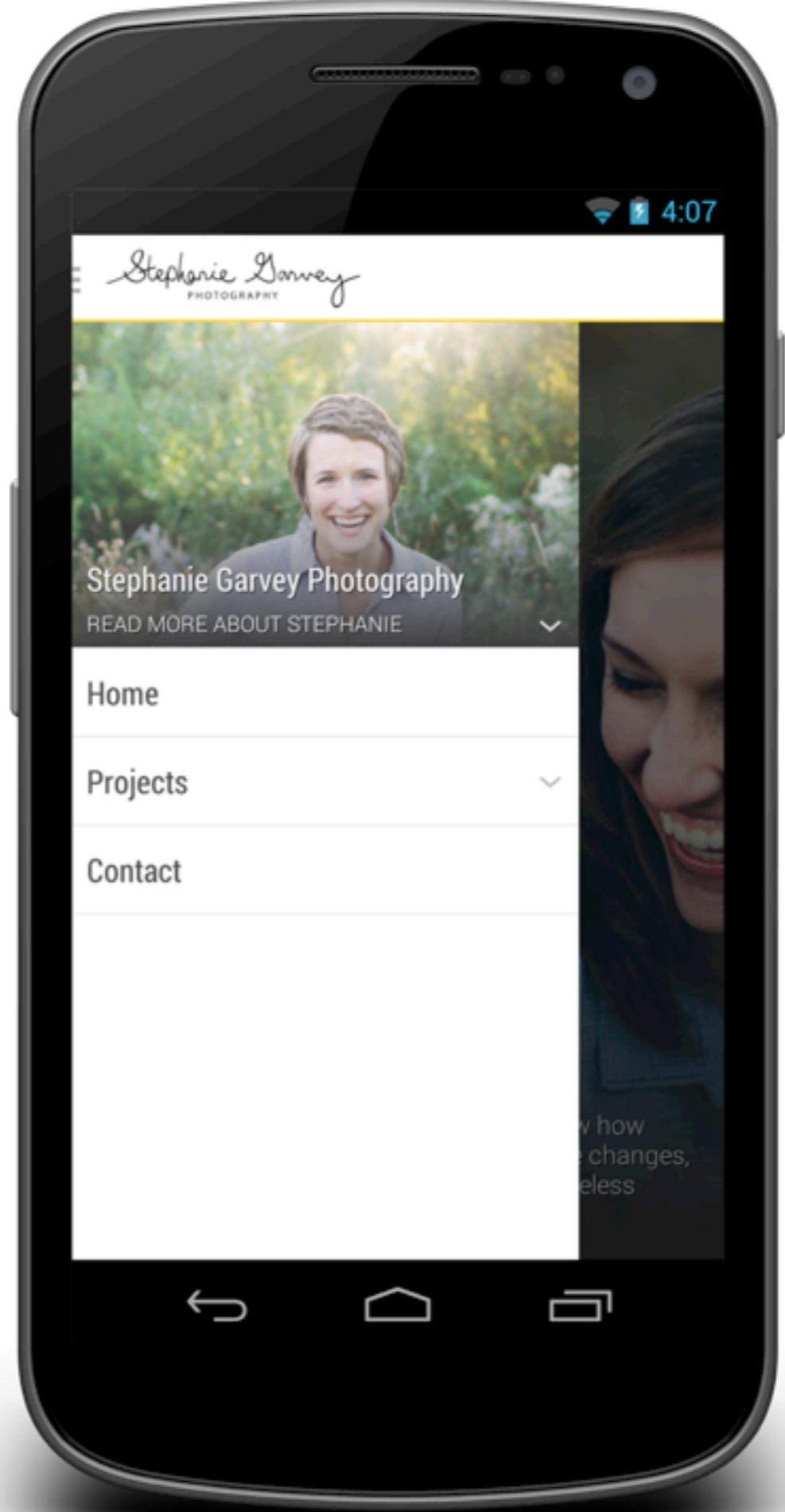
Projects

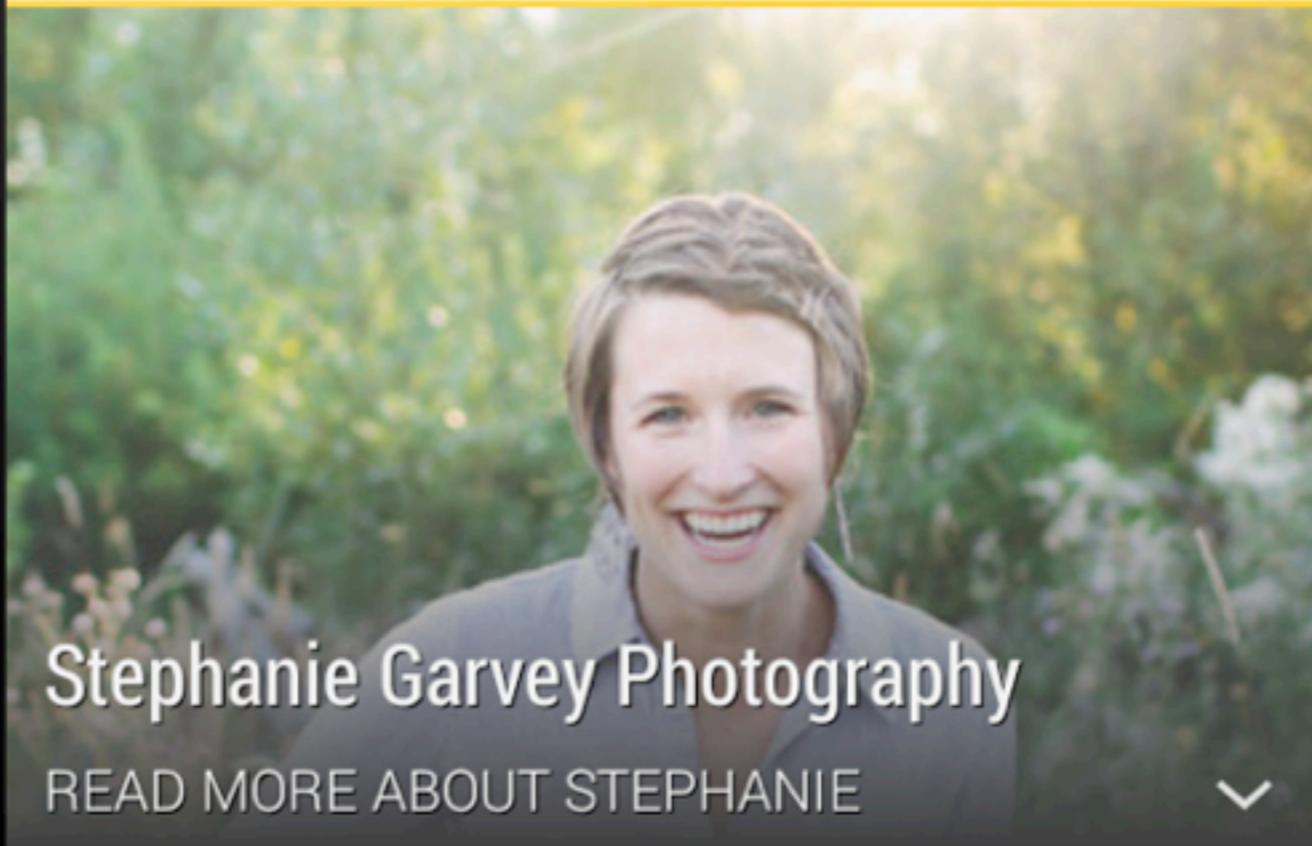
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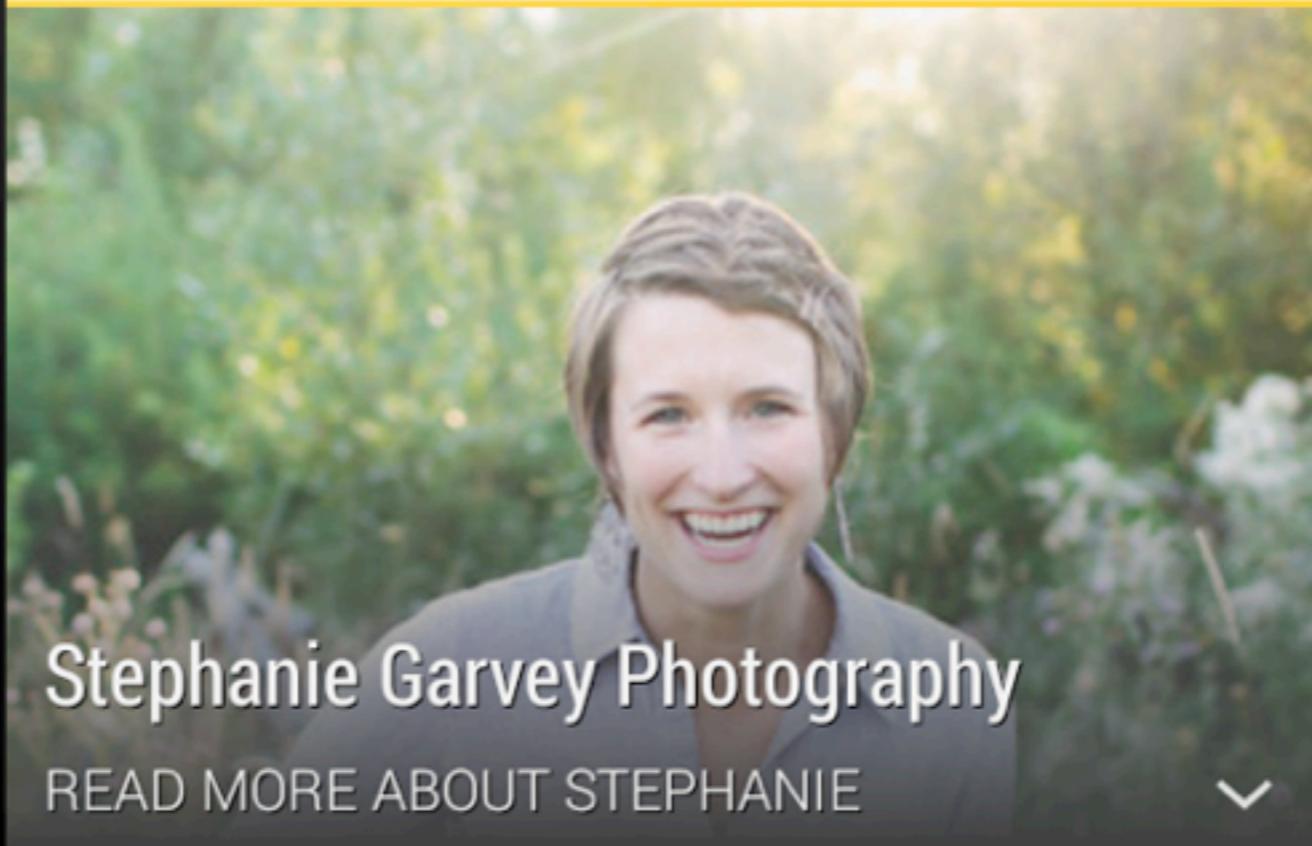
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Projects



Contact



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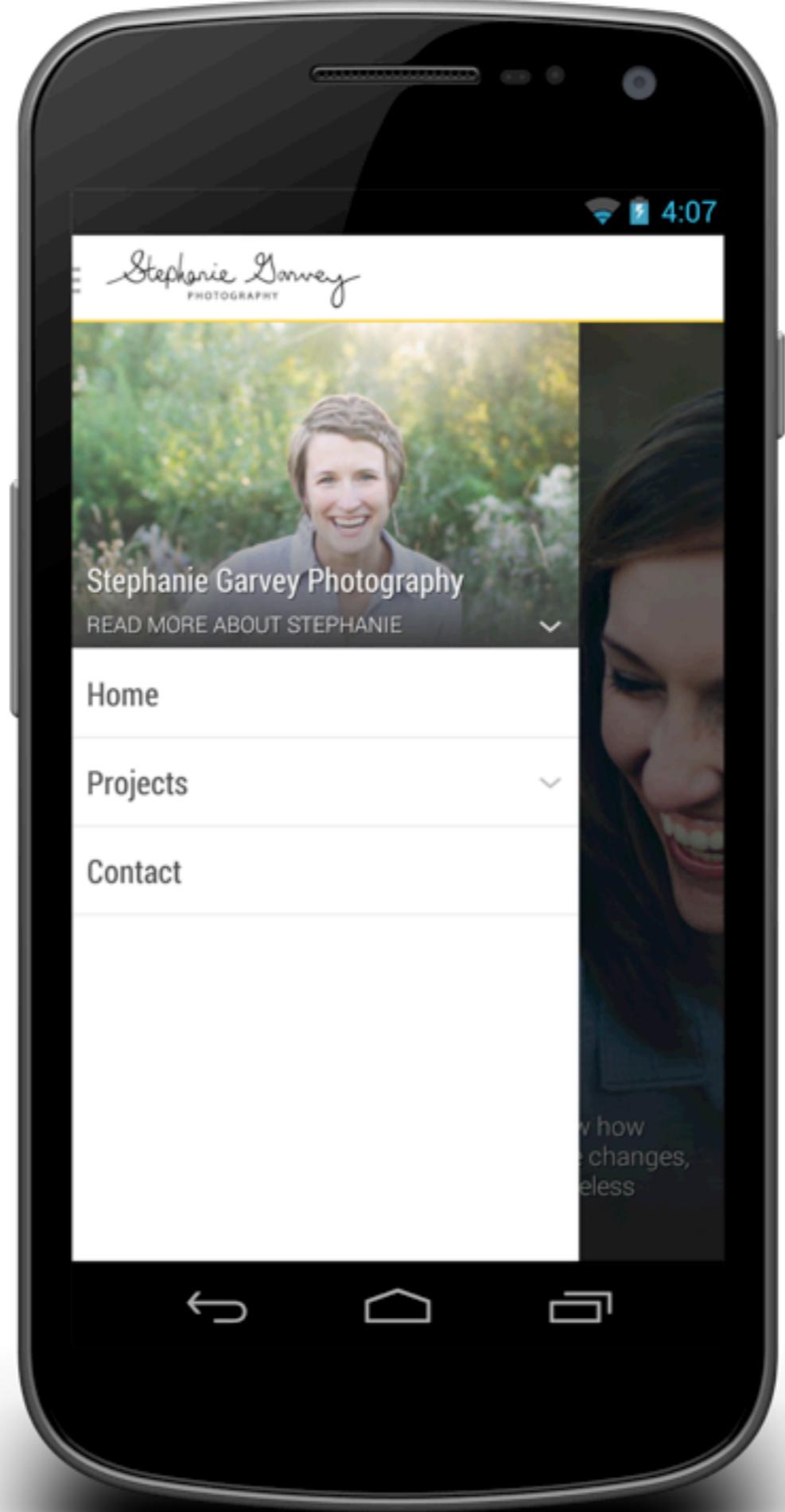


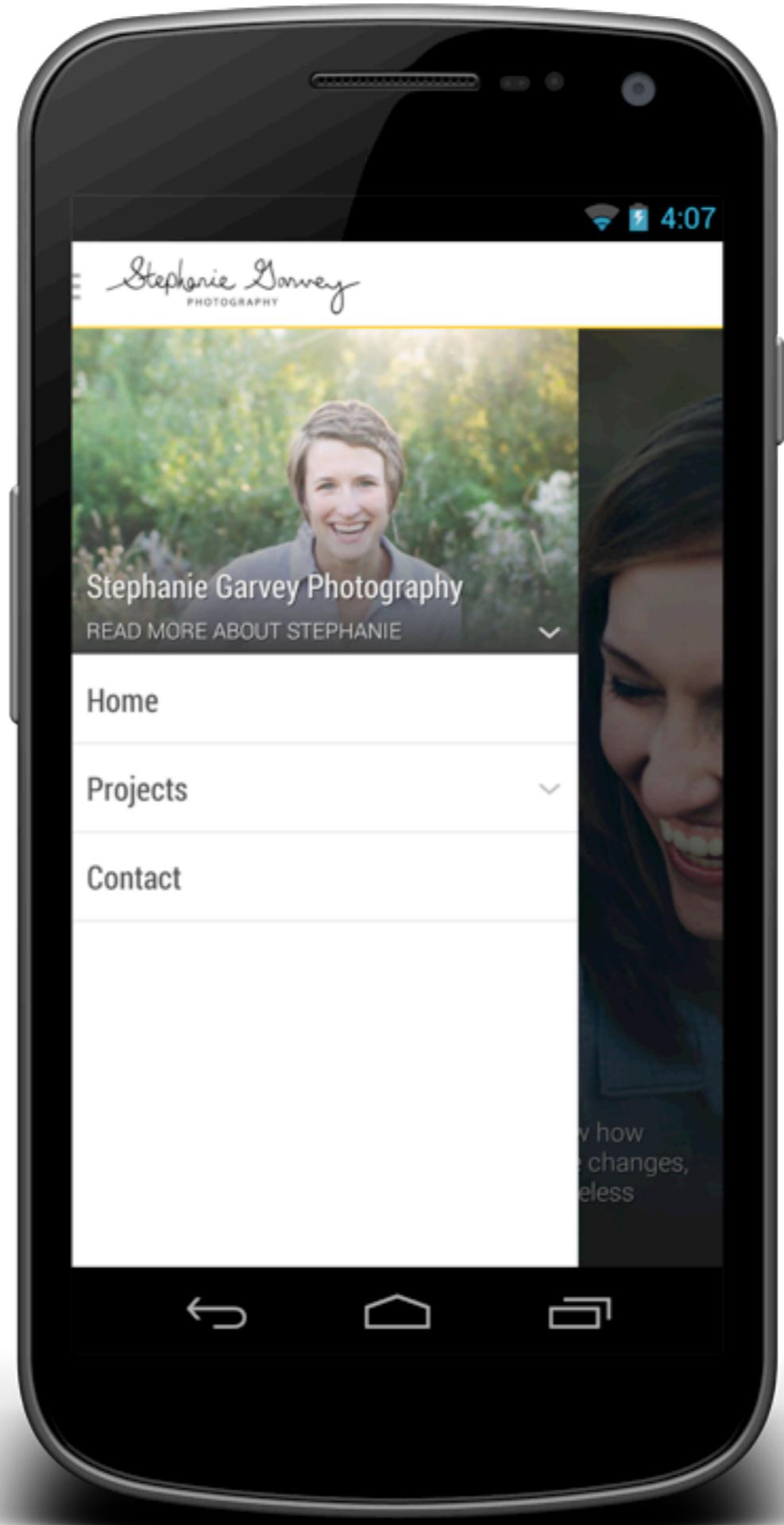
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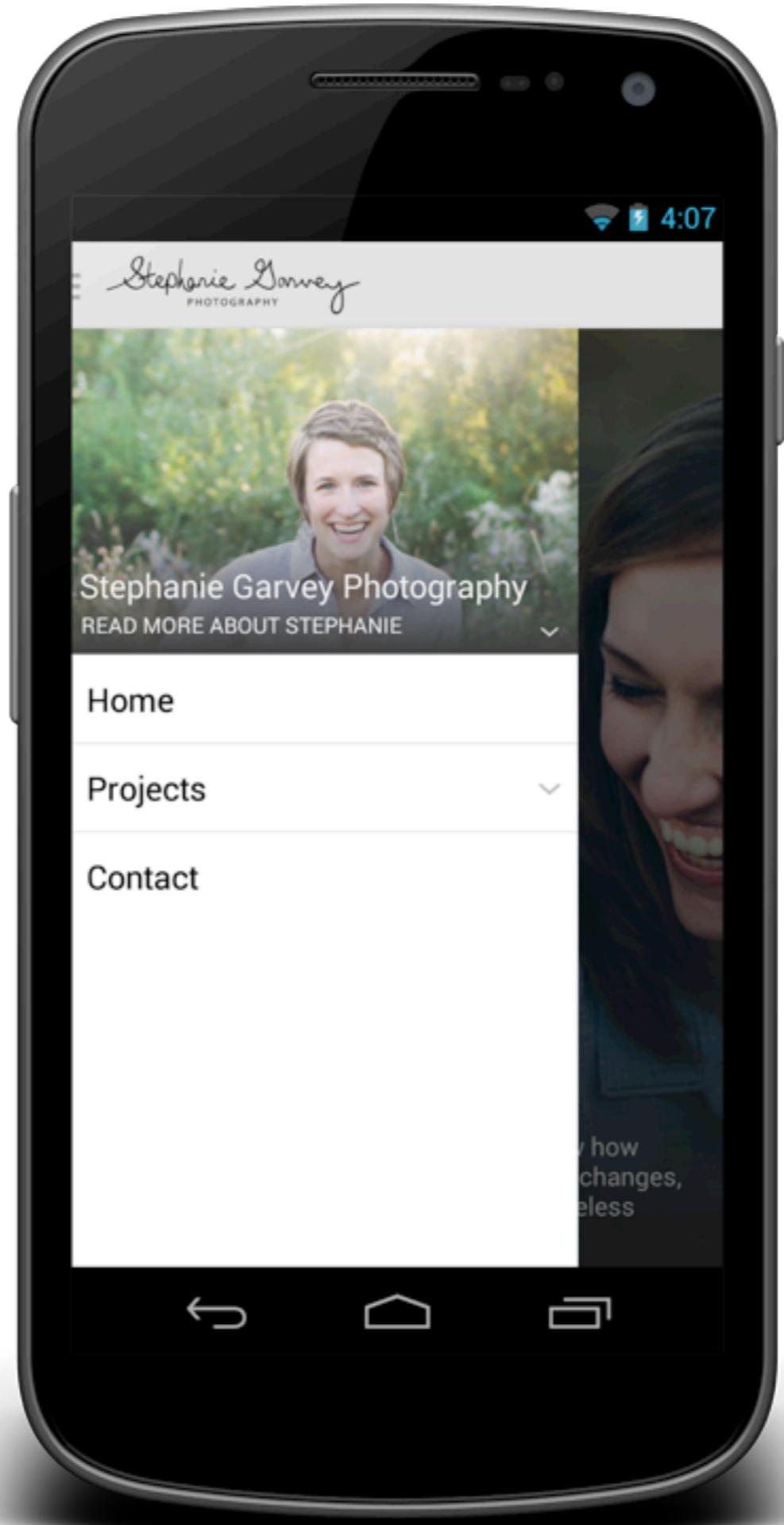


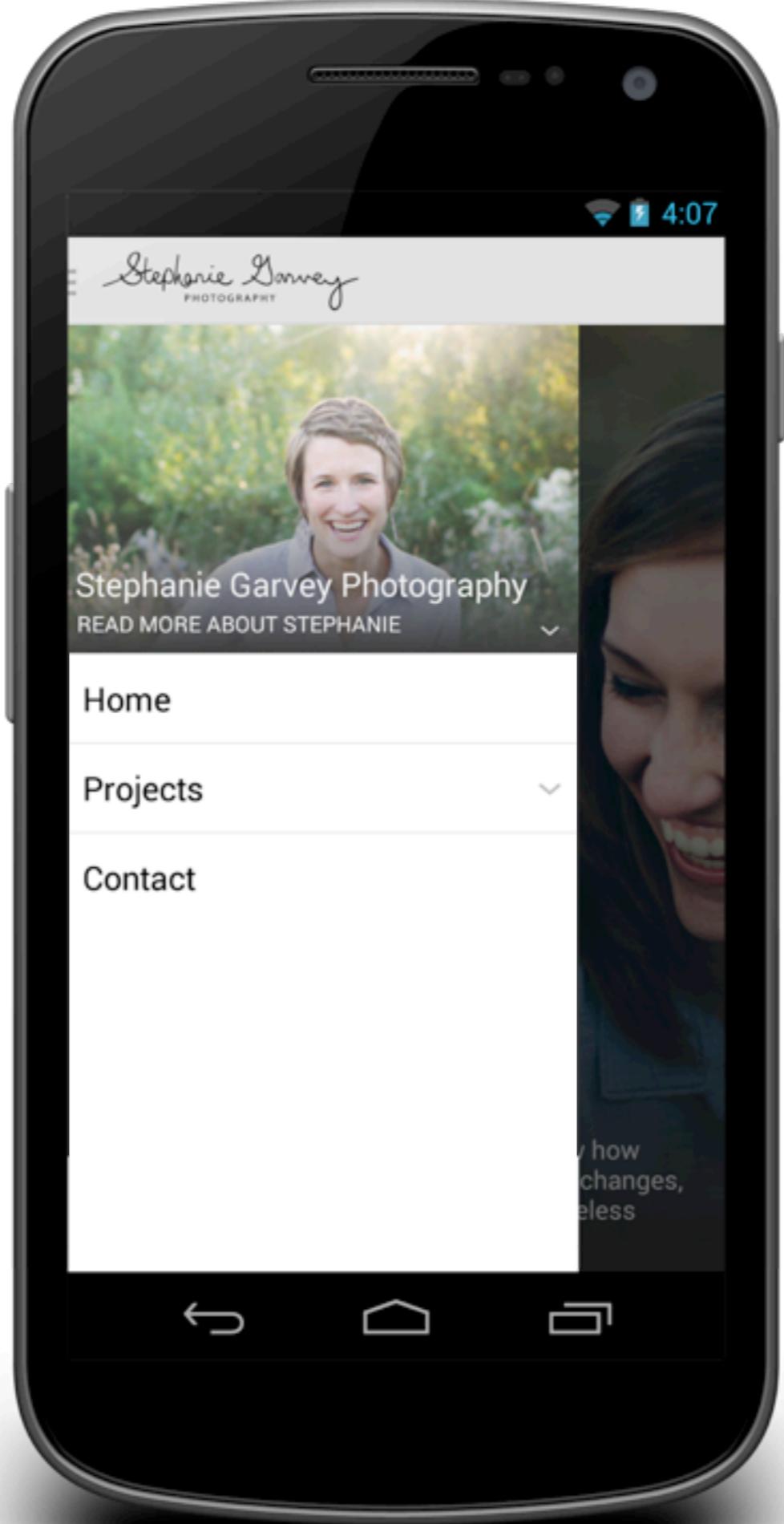
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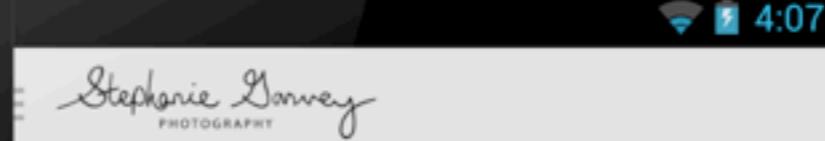












Stephanie Garvey Photography

My passion is to make photographs full of real emotion, so you can have real memories.

I am happily married to my incredibly talented husband of 9 years and grateful to be a mother to two energetic boys. I love planning travels with my husband. I am a nature lover. I find joy in colors. Laughing is my favorite past time and I can't fully enjoy life without sharing it with others.

I look forward to meeting and creating beautiful photographs for you to cherish!

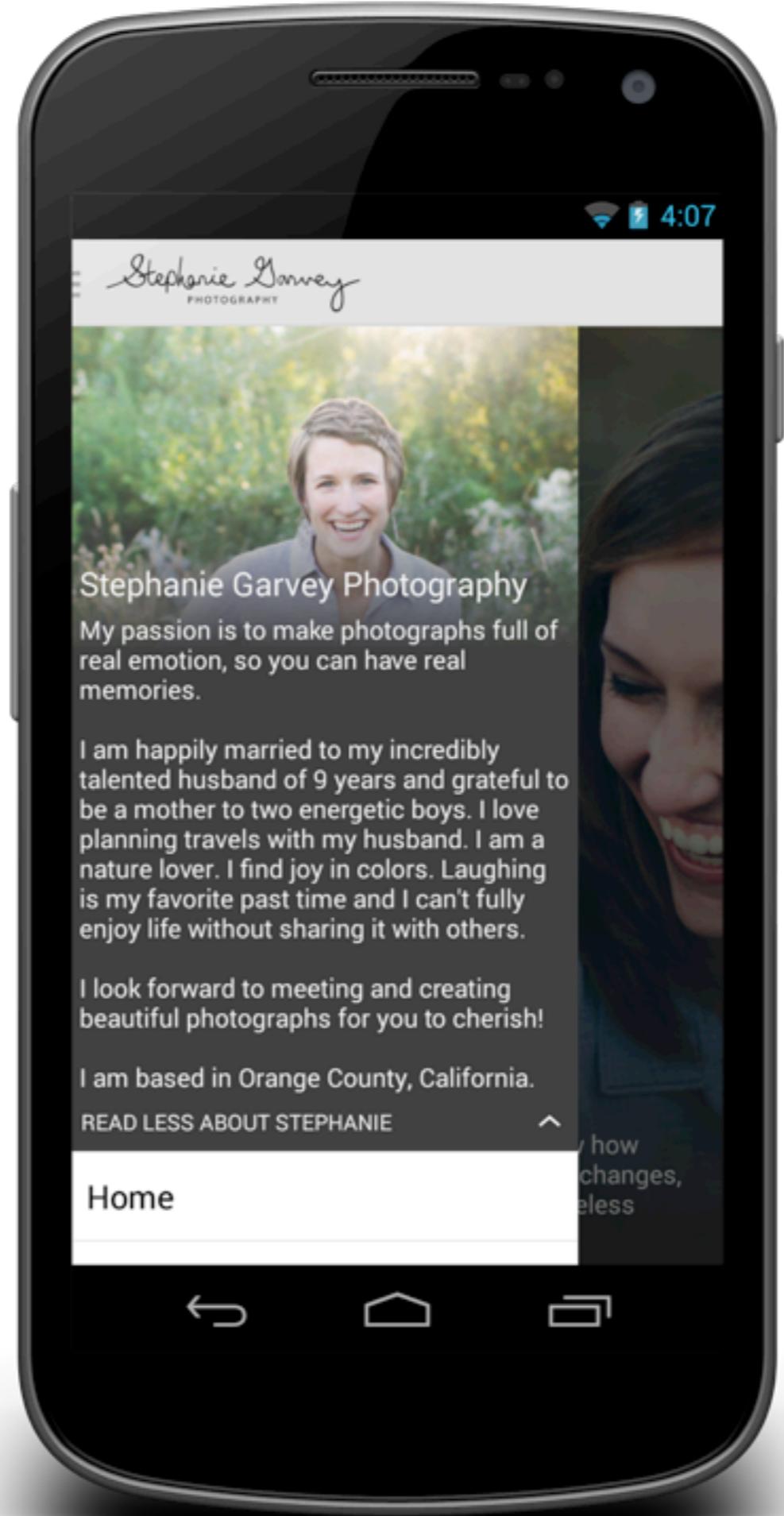
I am based in Orange County, California.

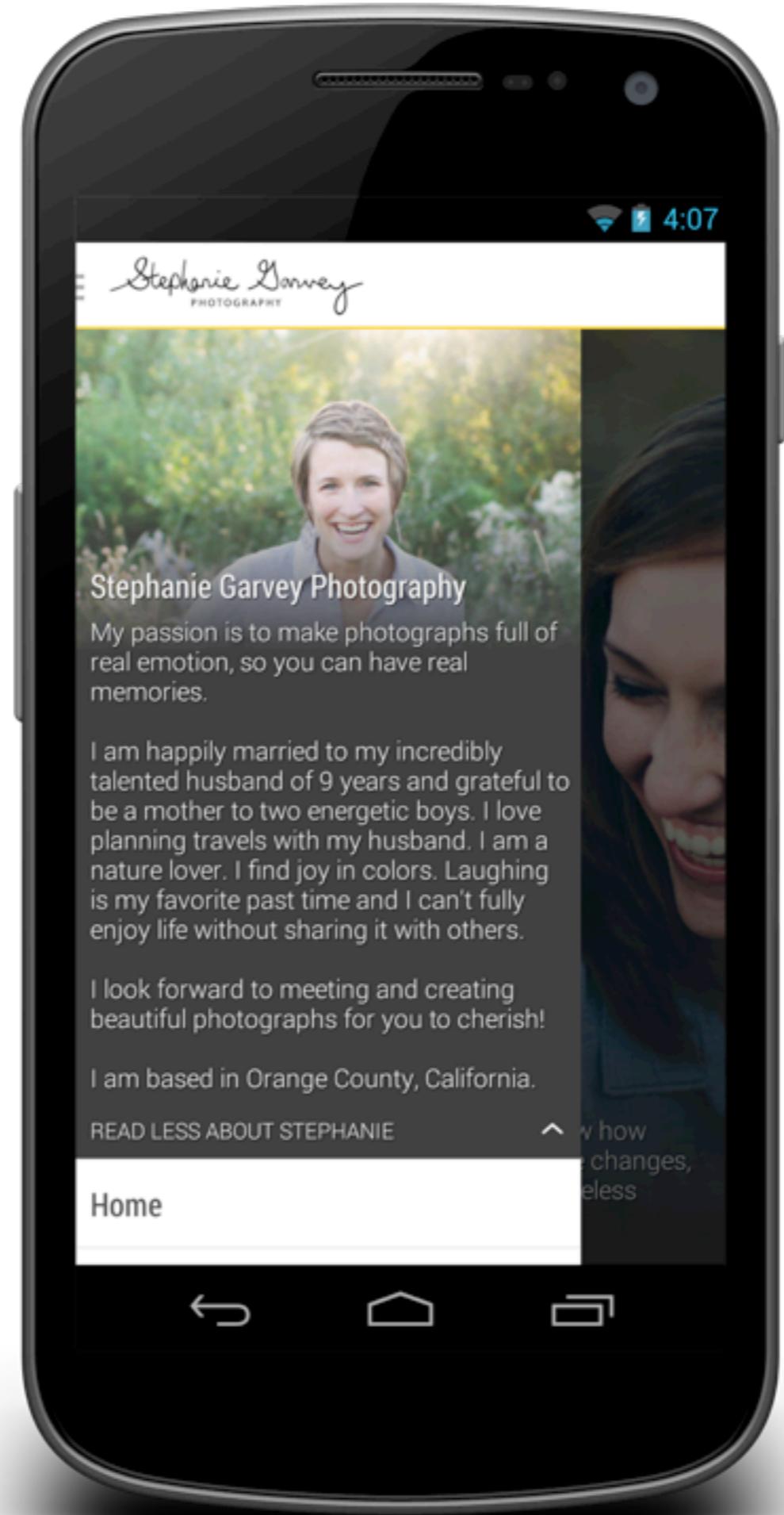
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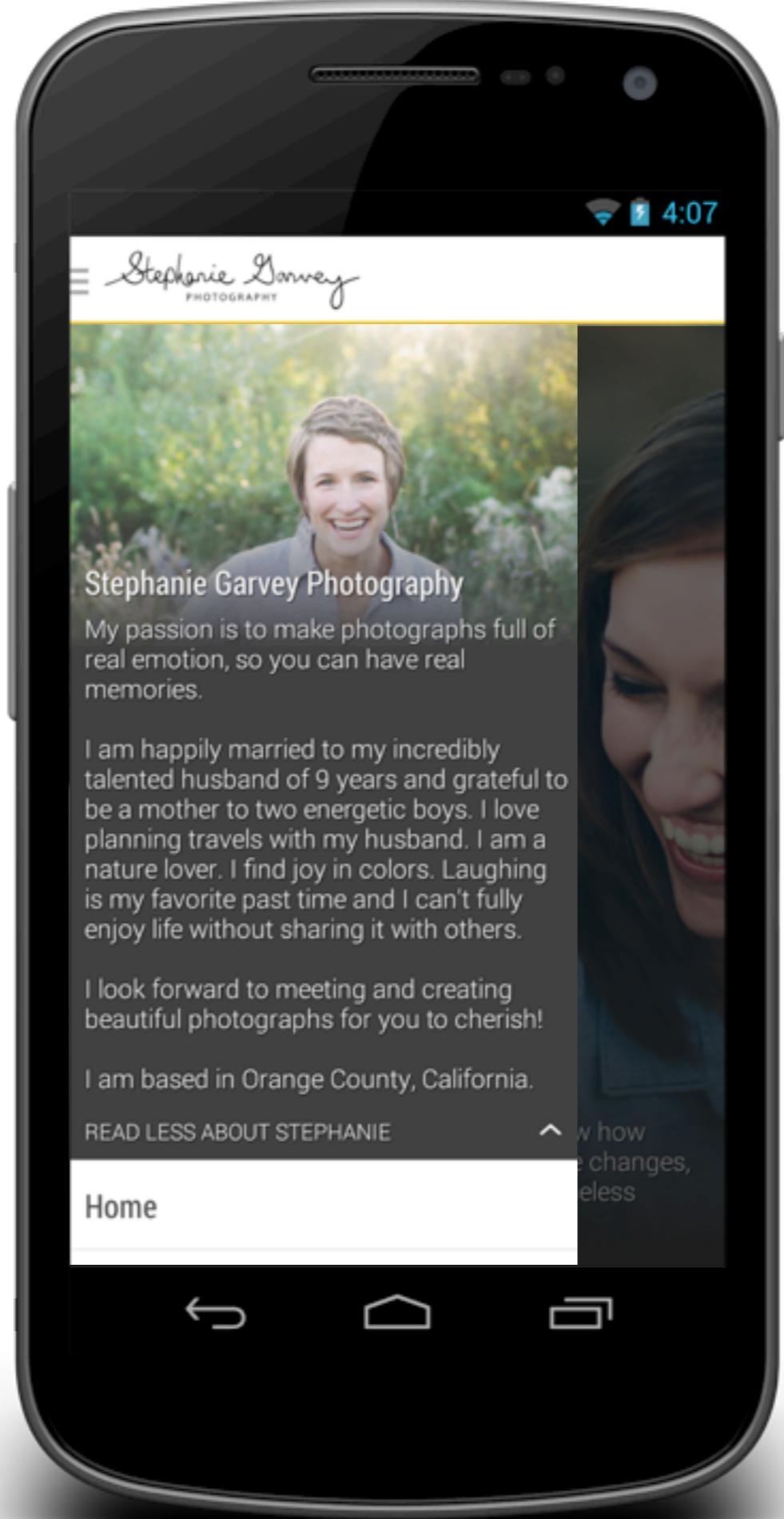
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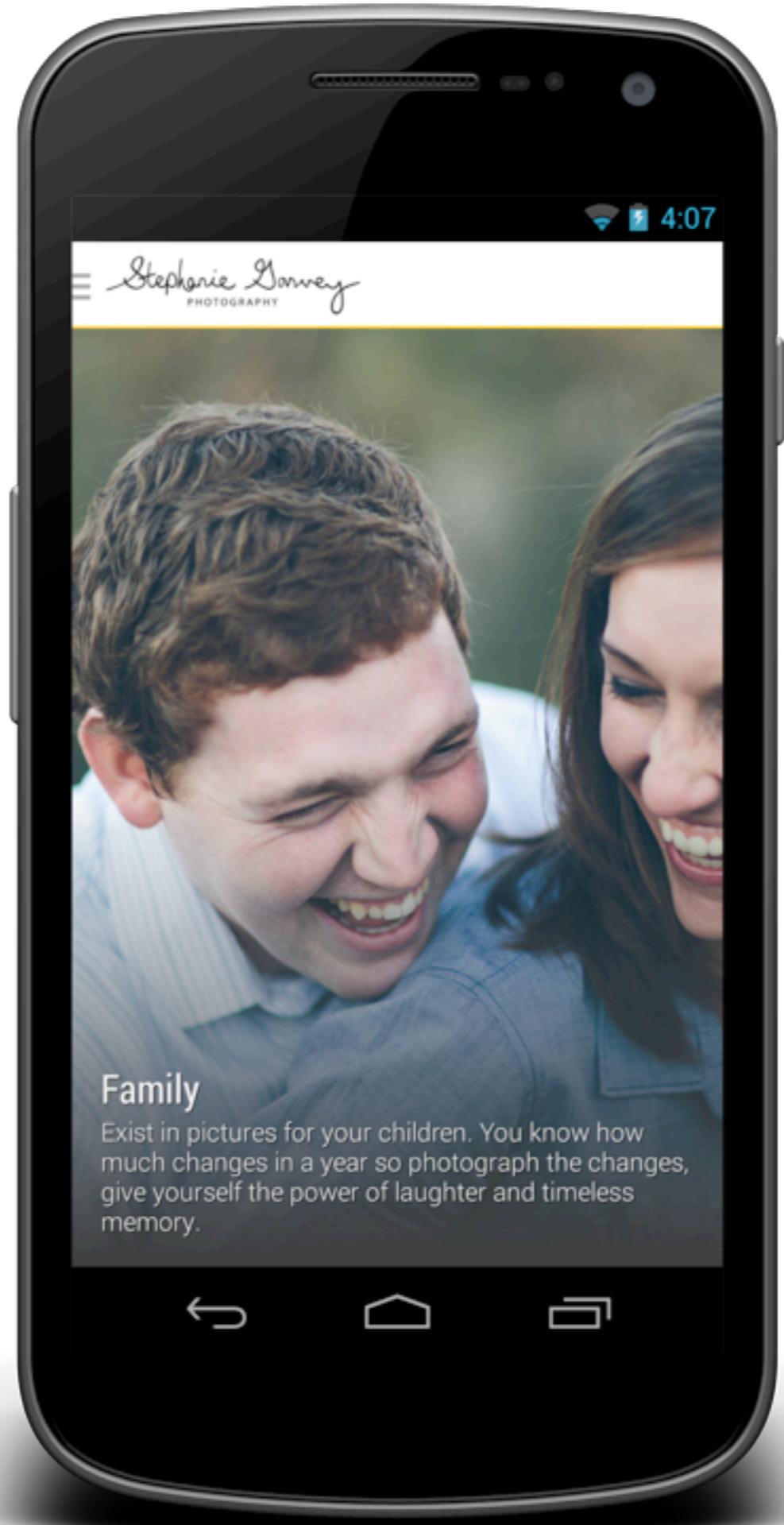


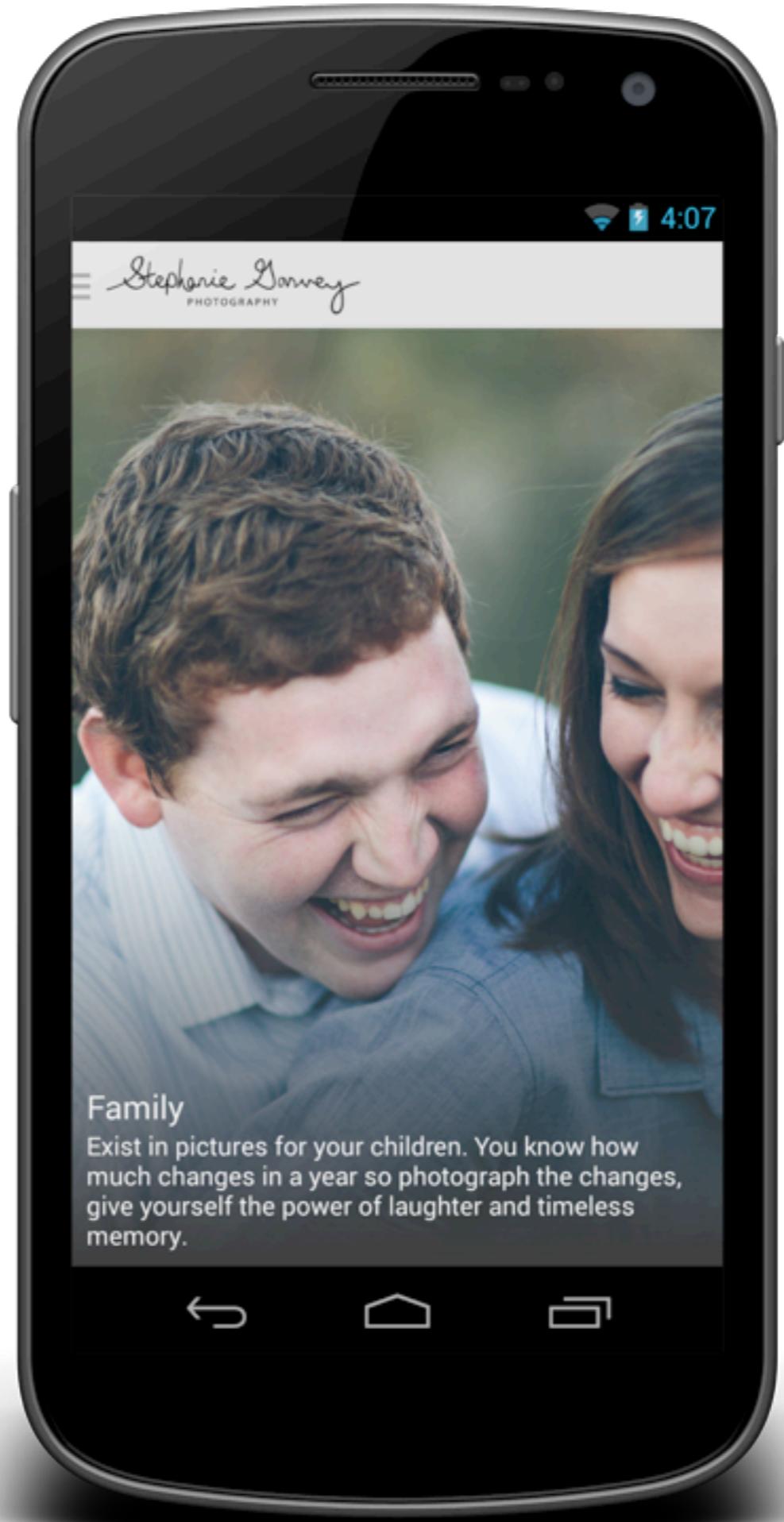


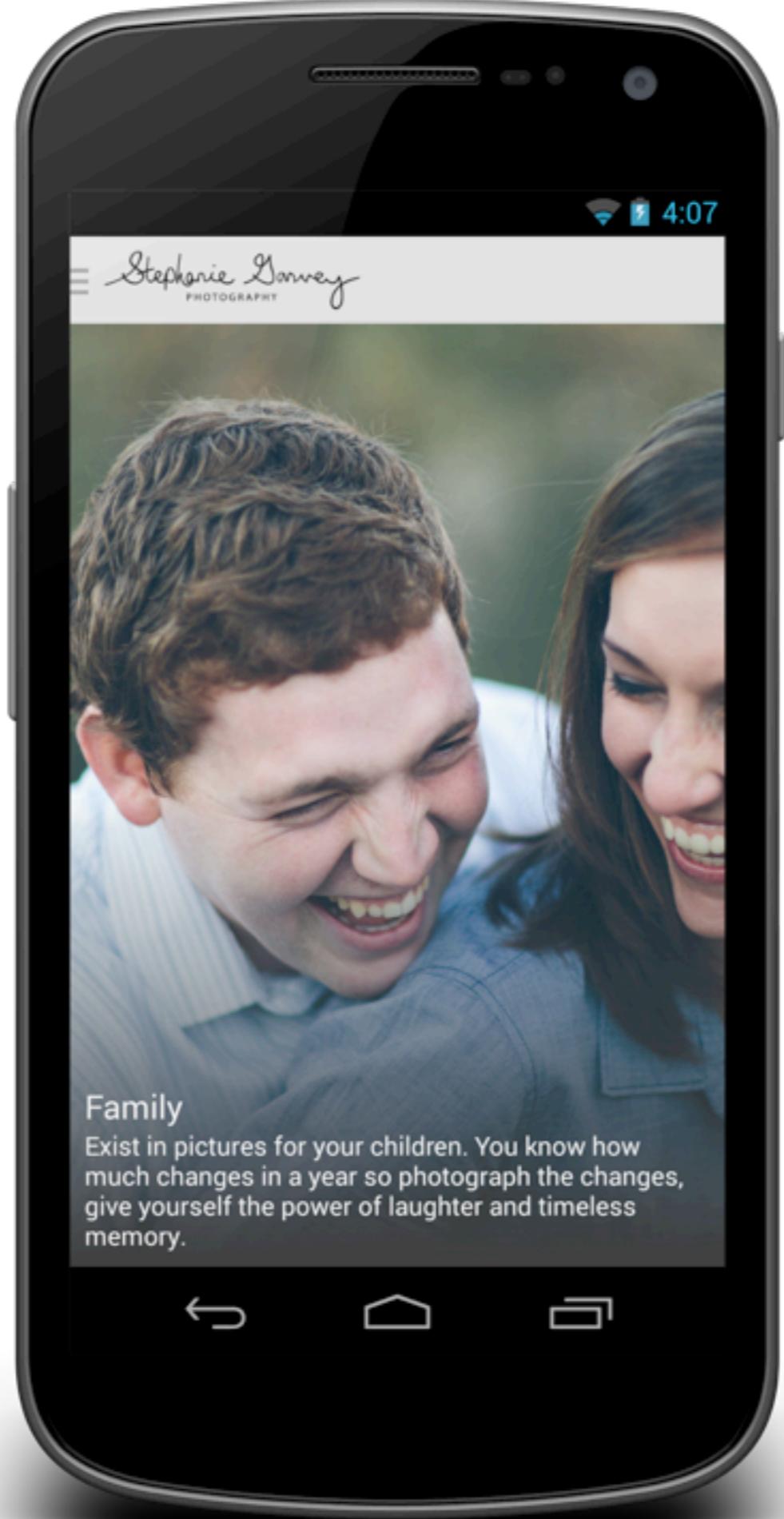


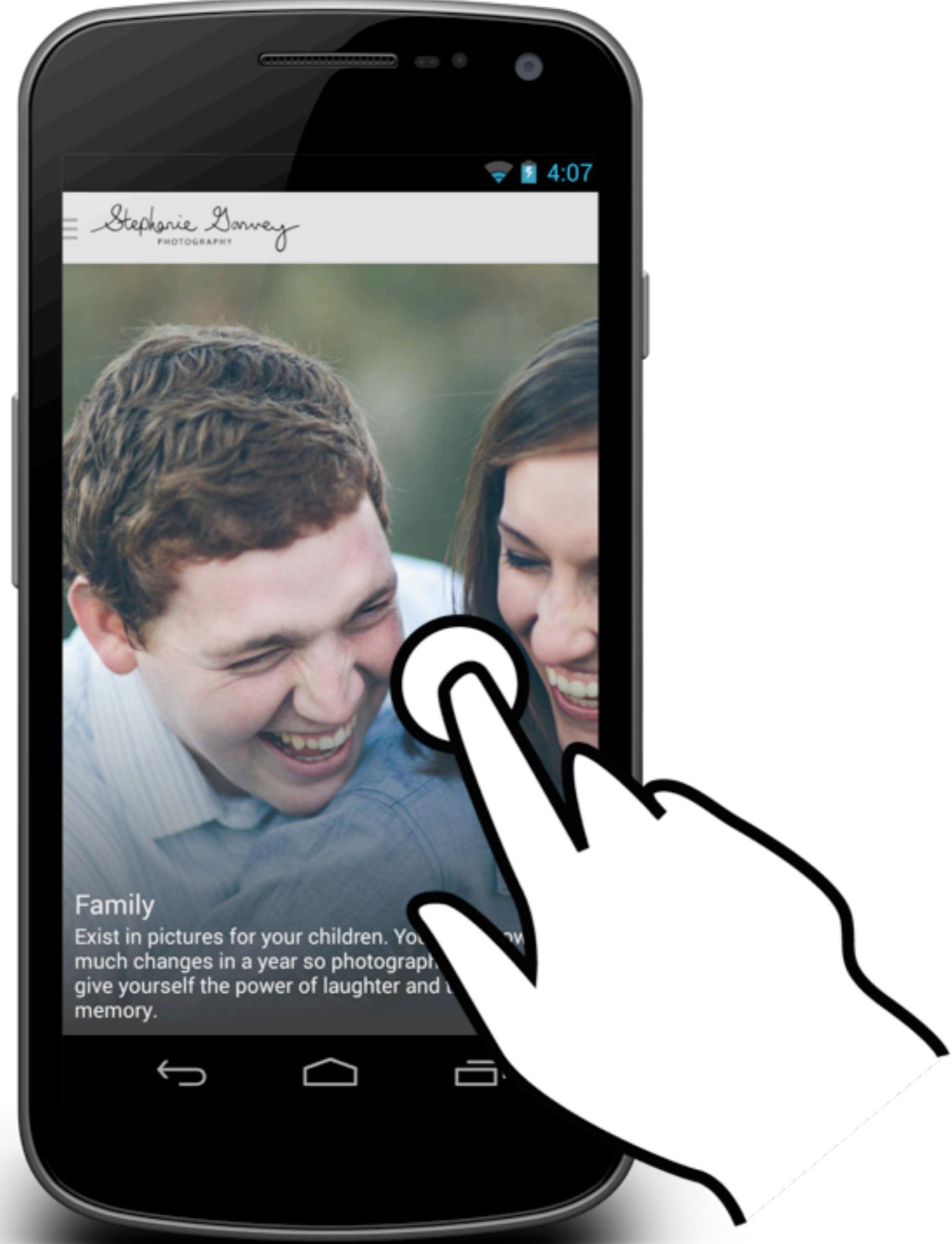










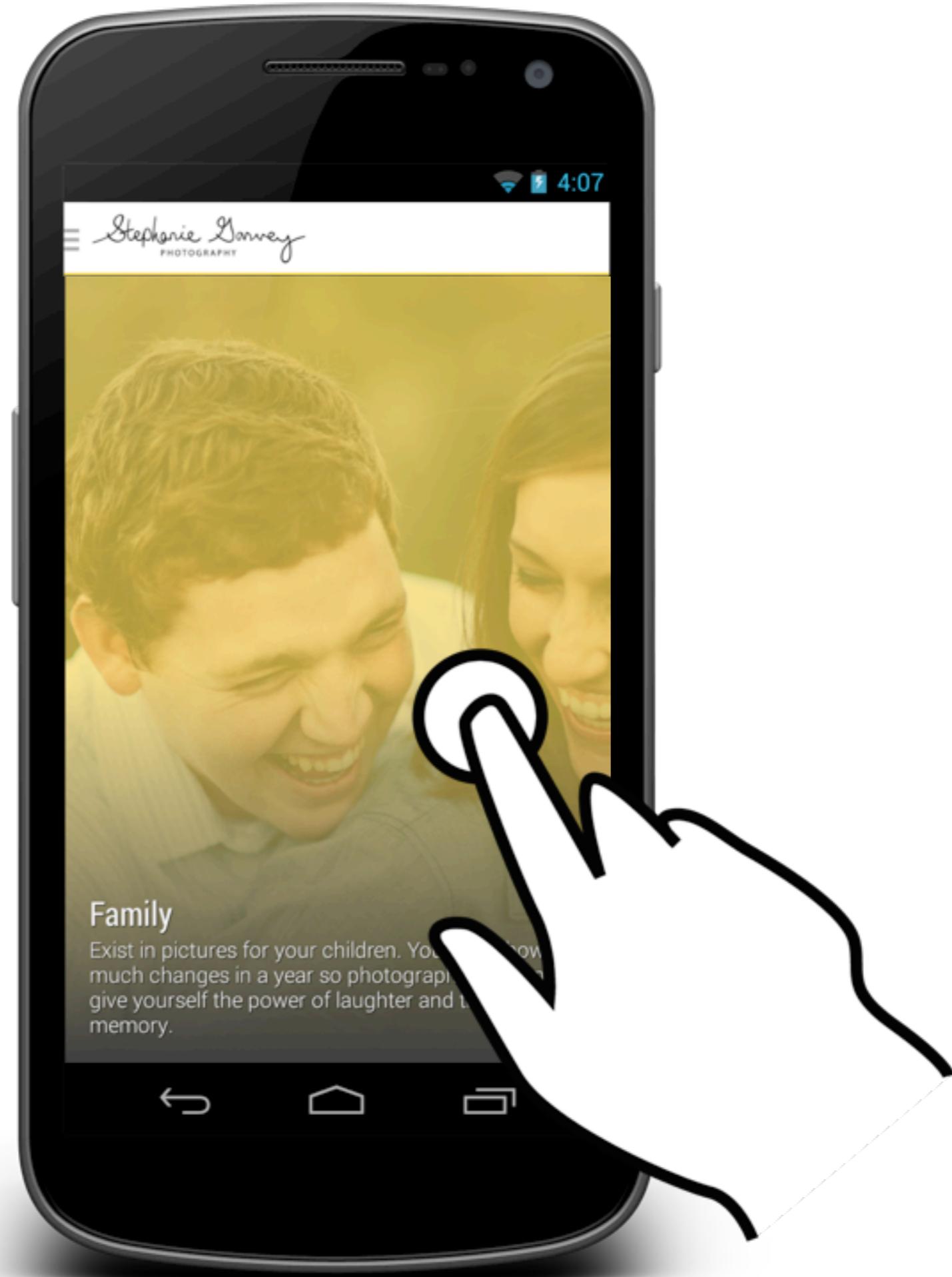


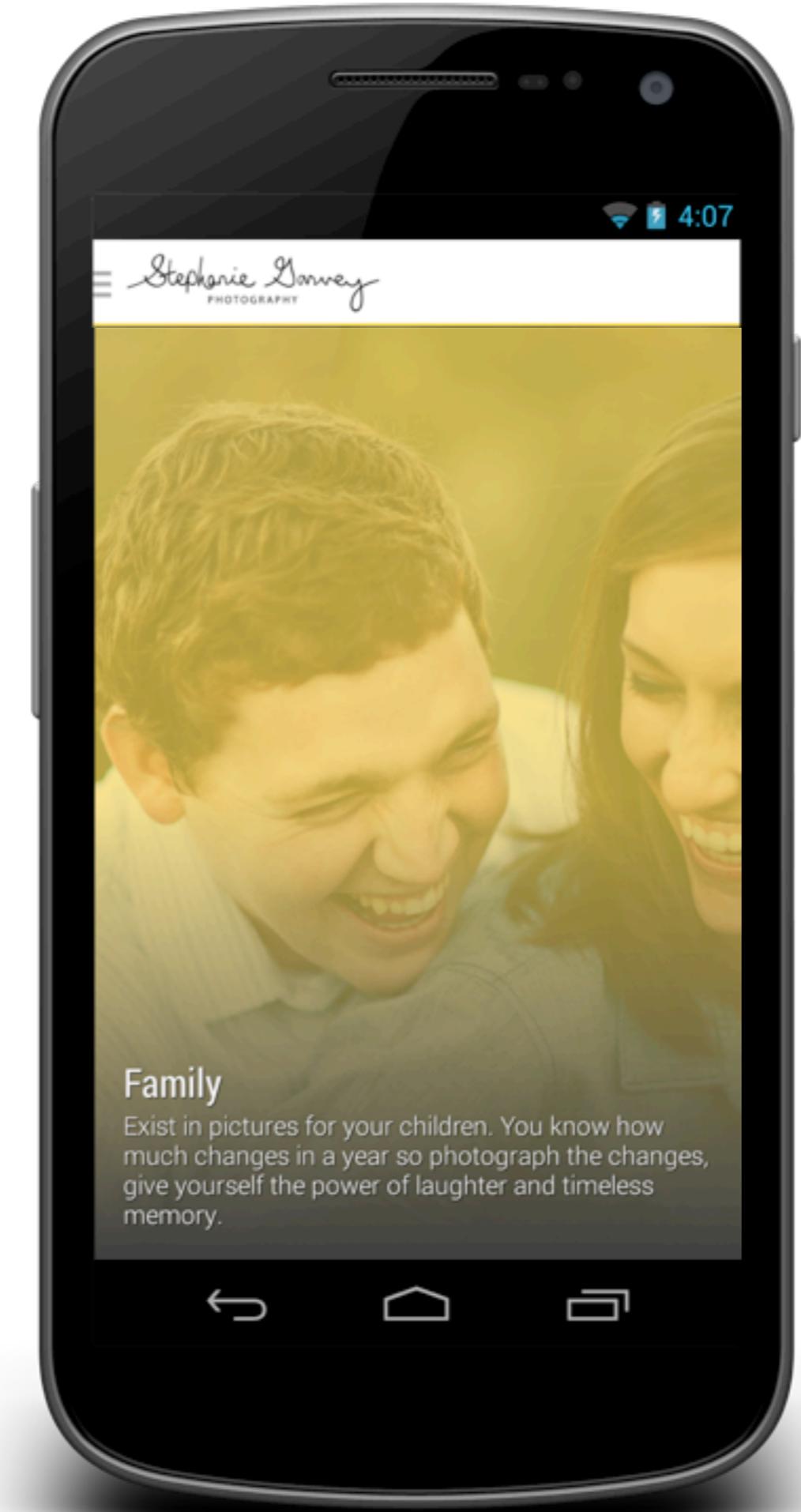
Family

Exist in pictures for your children. You can see how much changes in a year so photographs give you the power of laughter and memory.





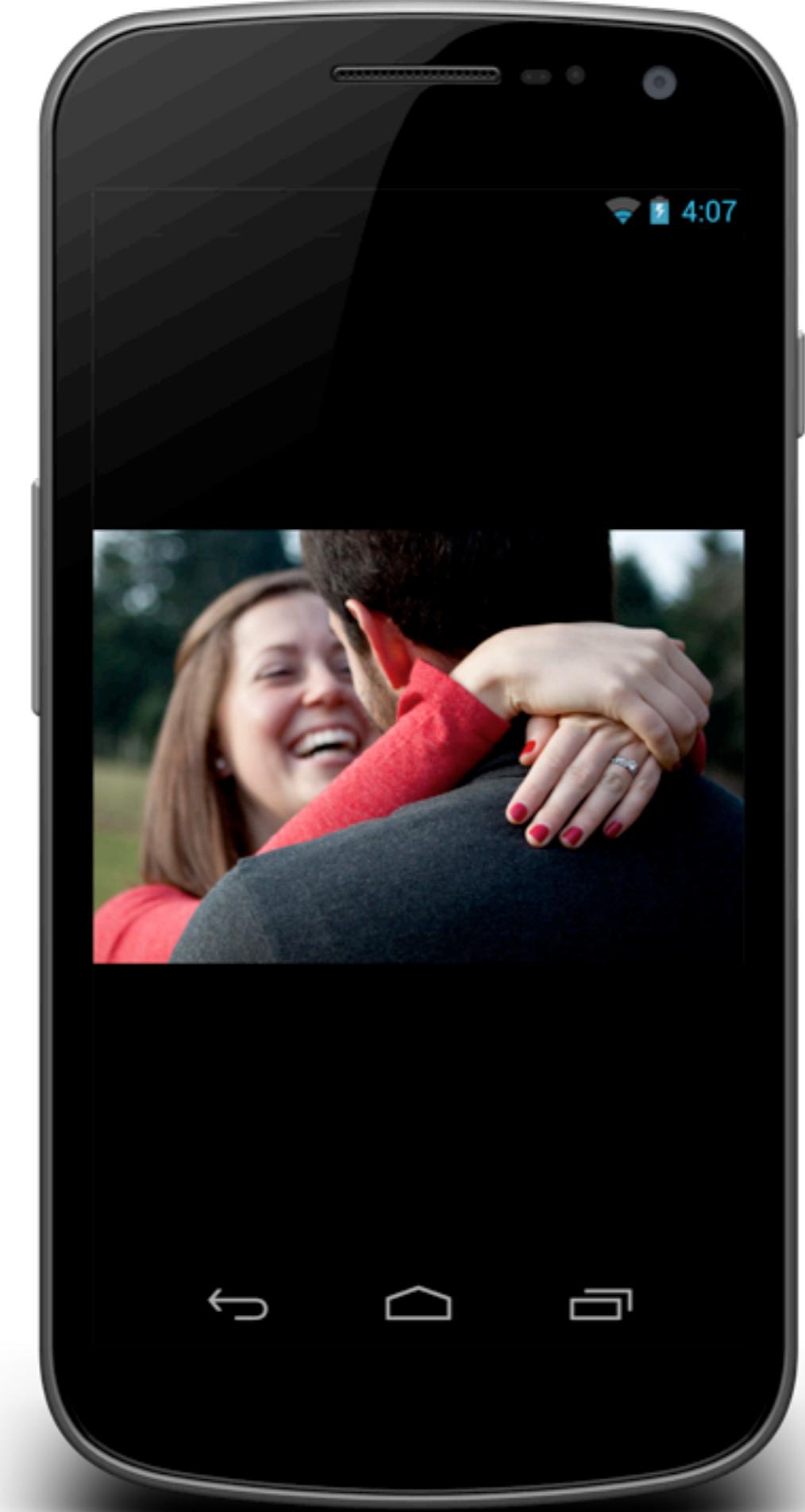


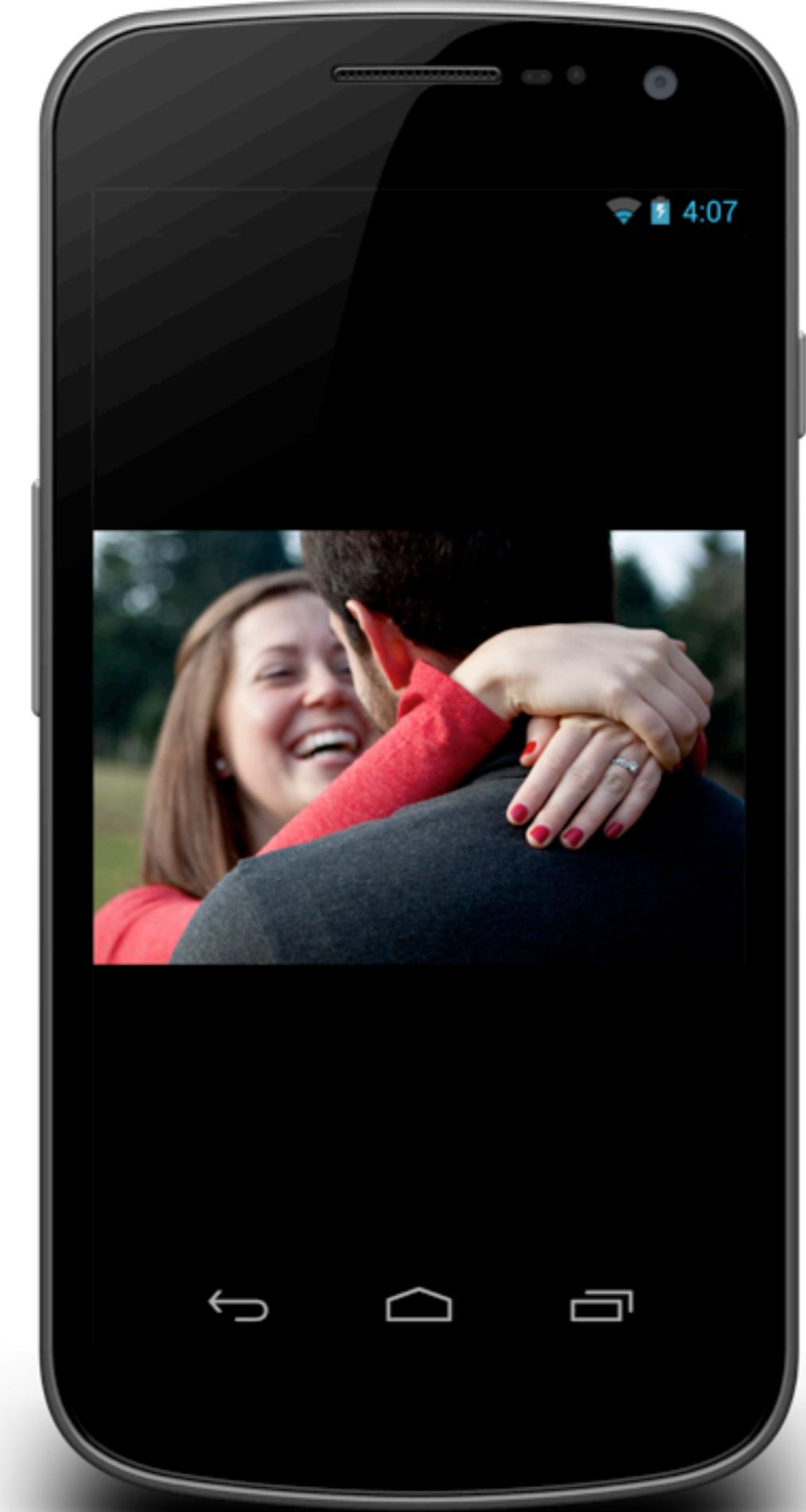


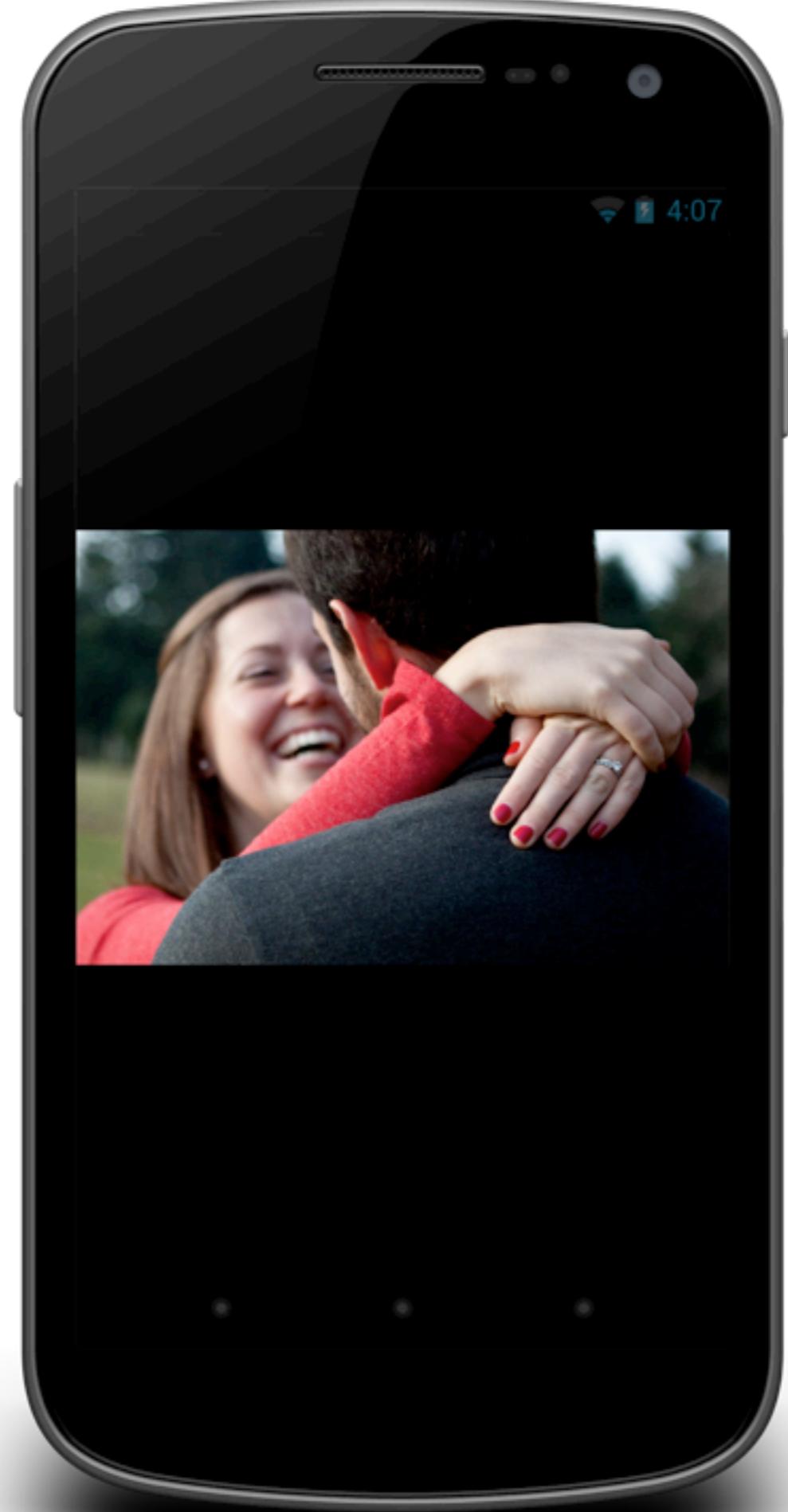


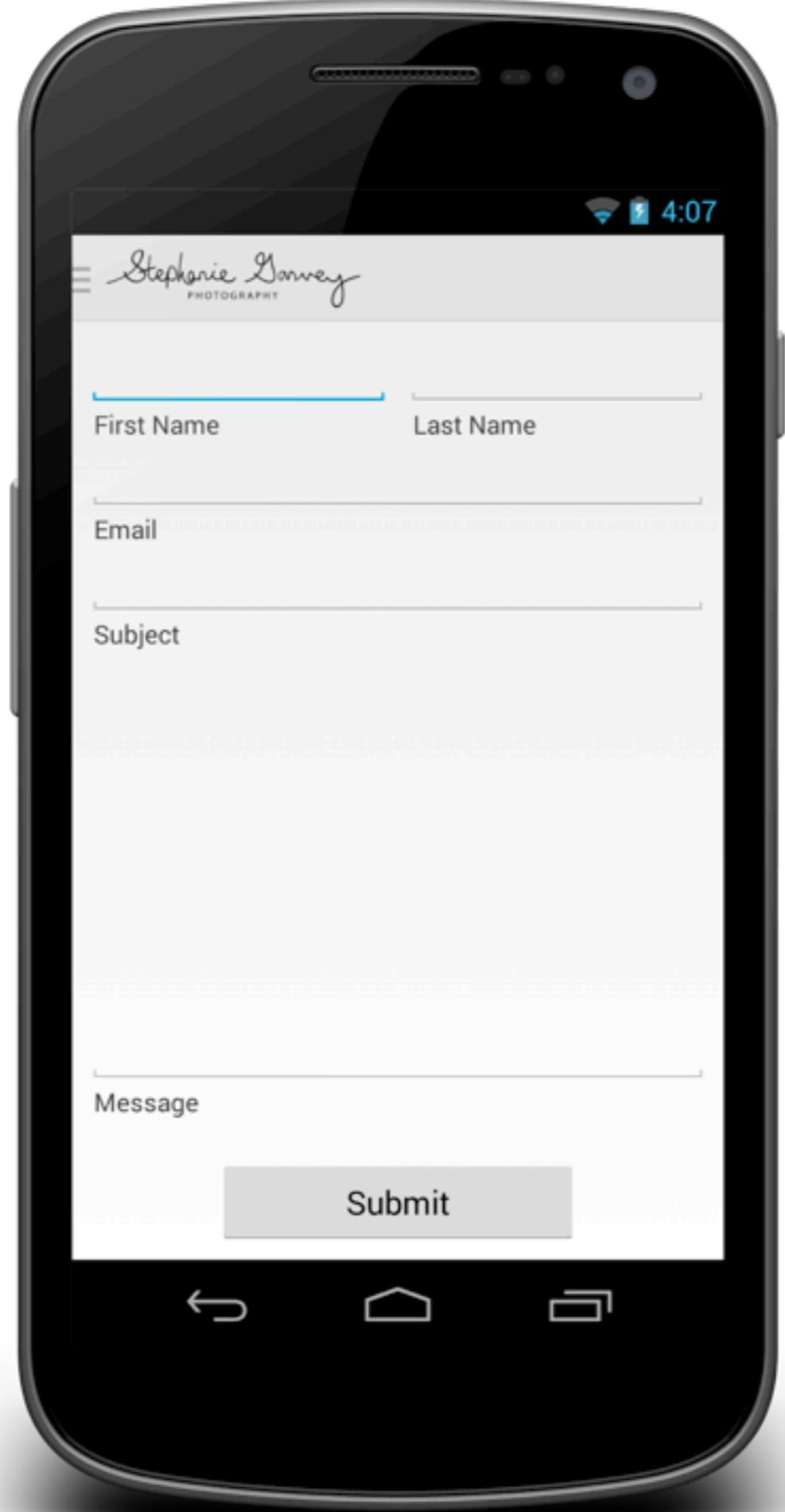


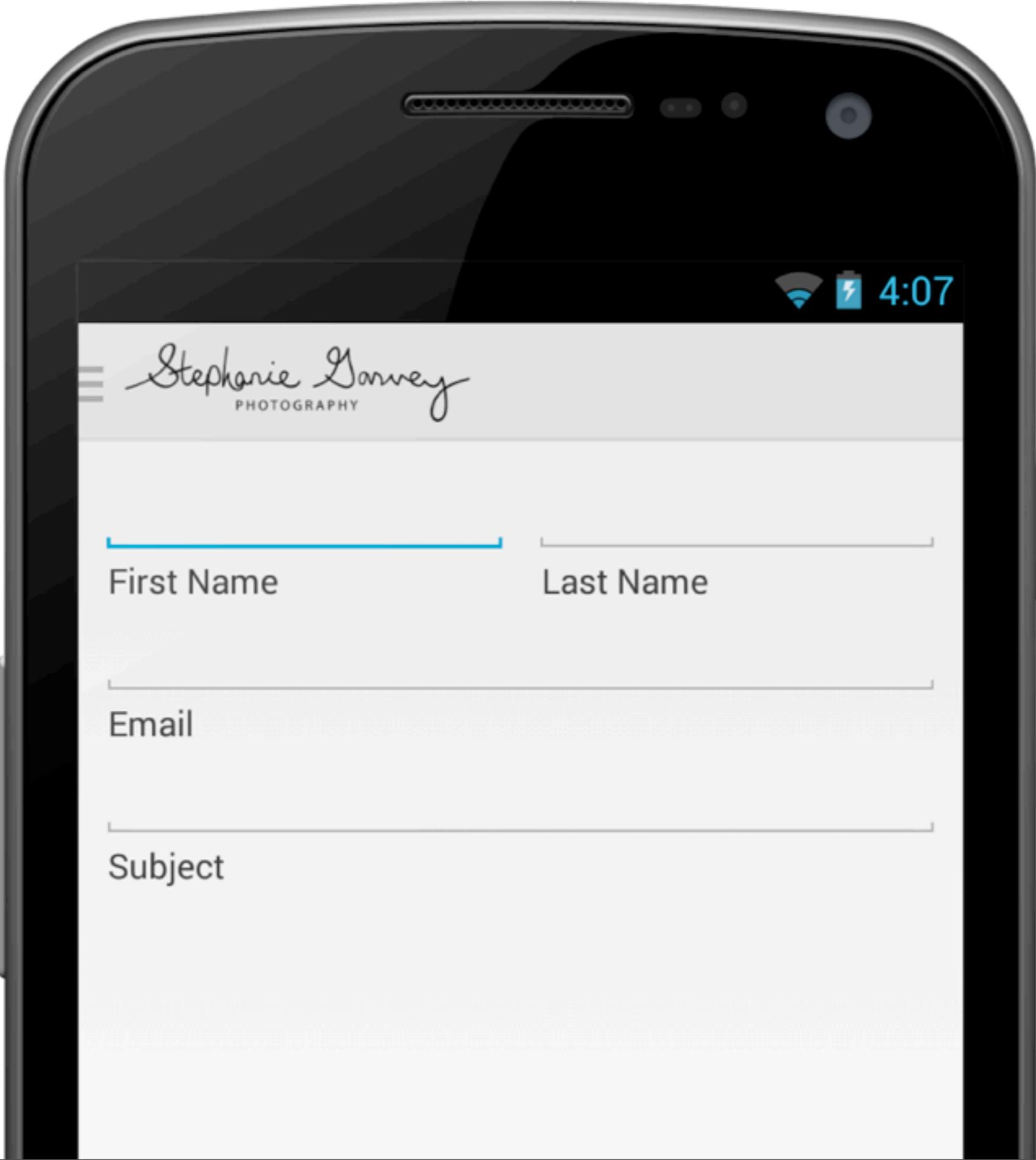












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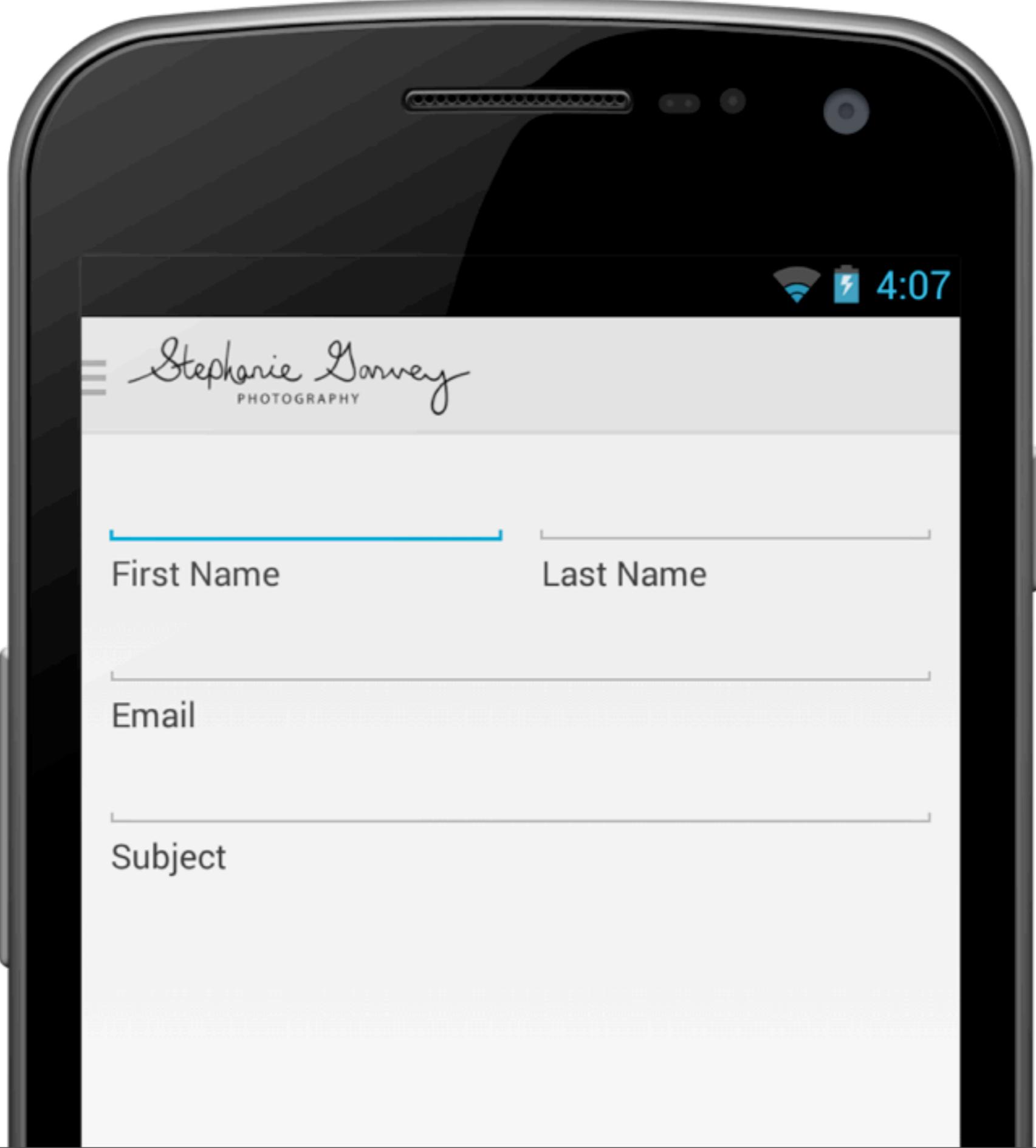
Stephanie Garvey
PHOTOGRAPHY

First Name

Last Name

Email

Subject



4:07

Stephanie Garvey
PHOTOGRAPHY

First Name

Last Name

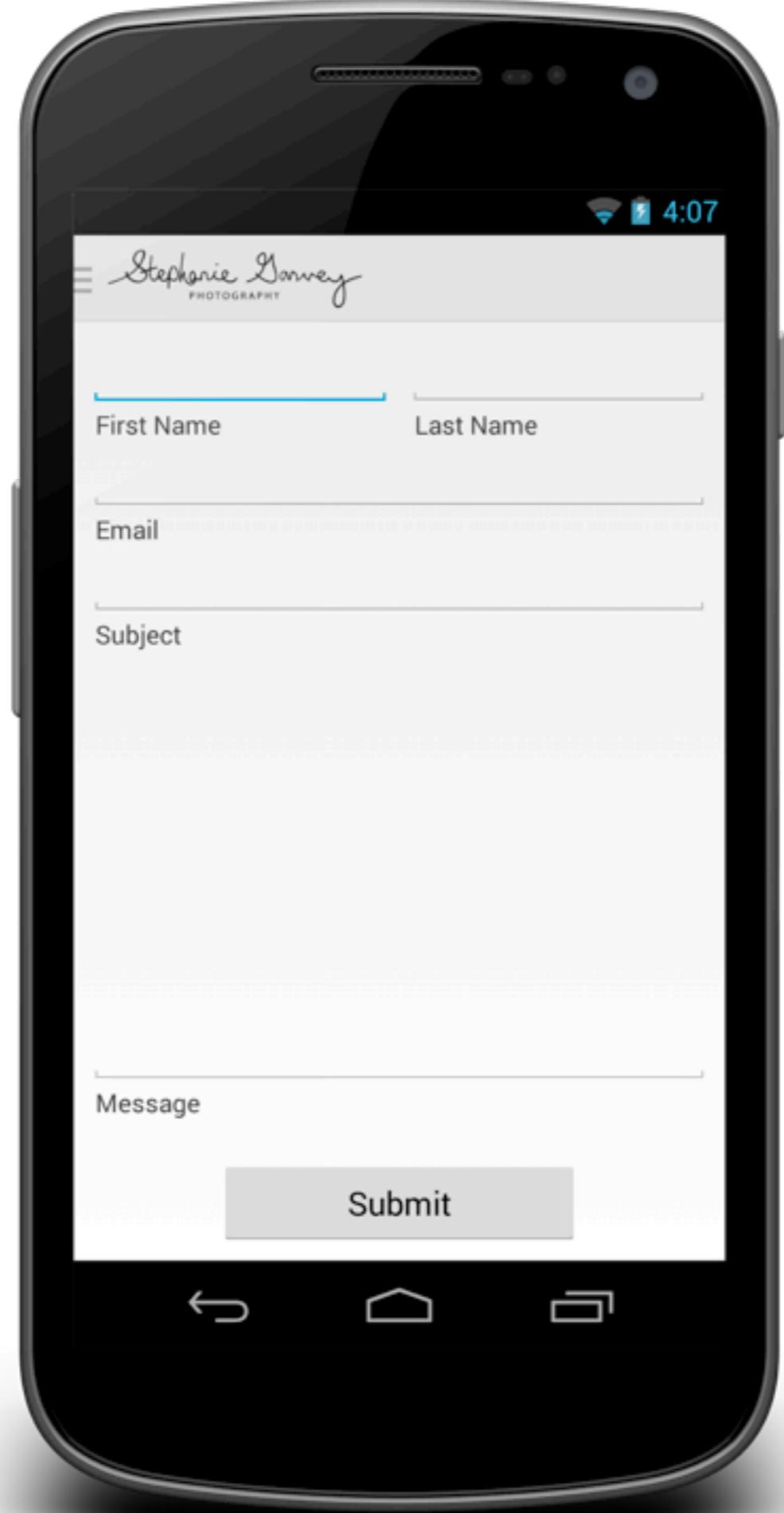
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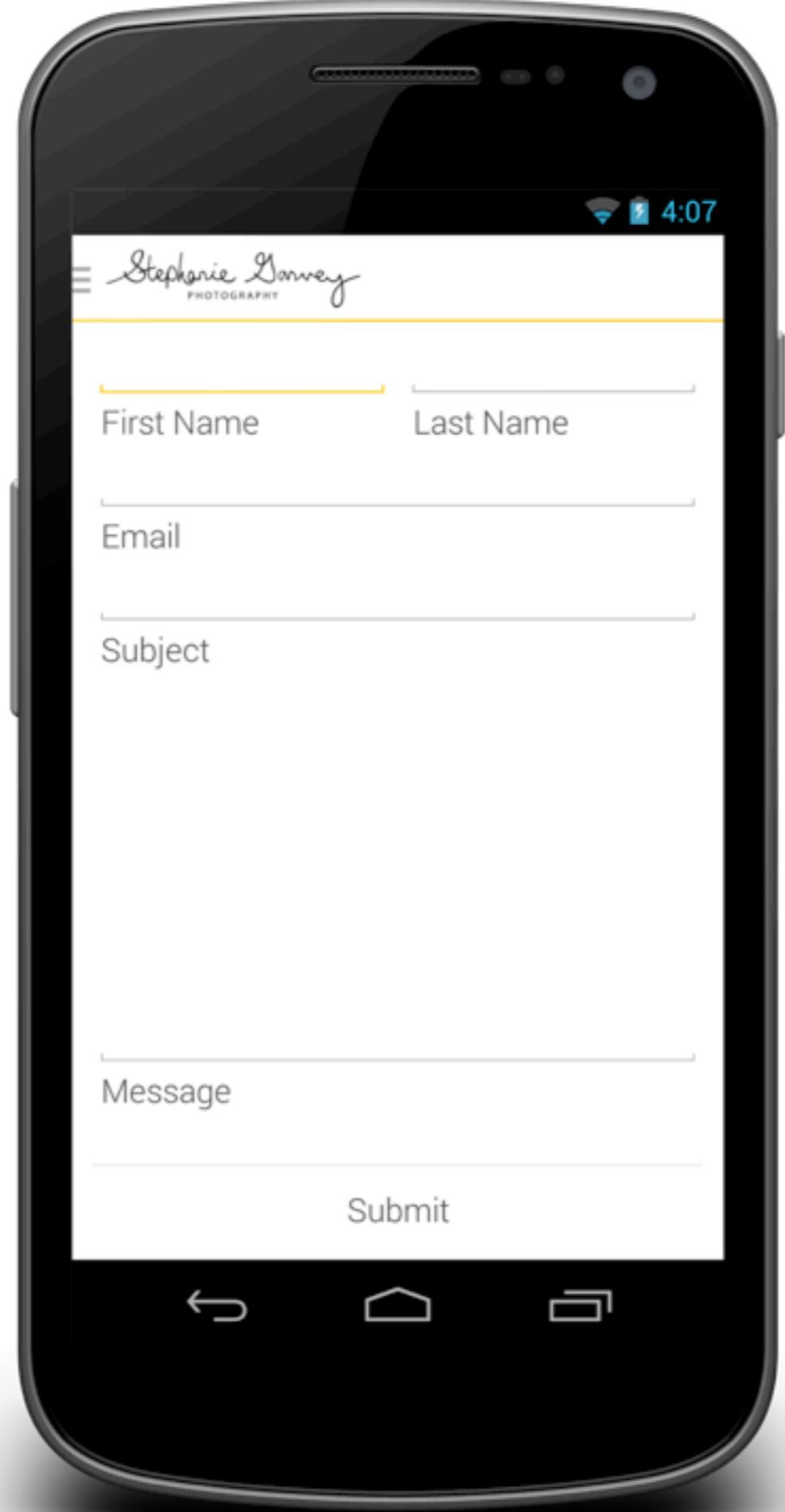
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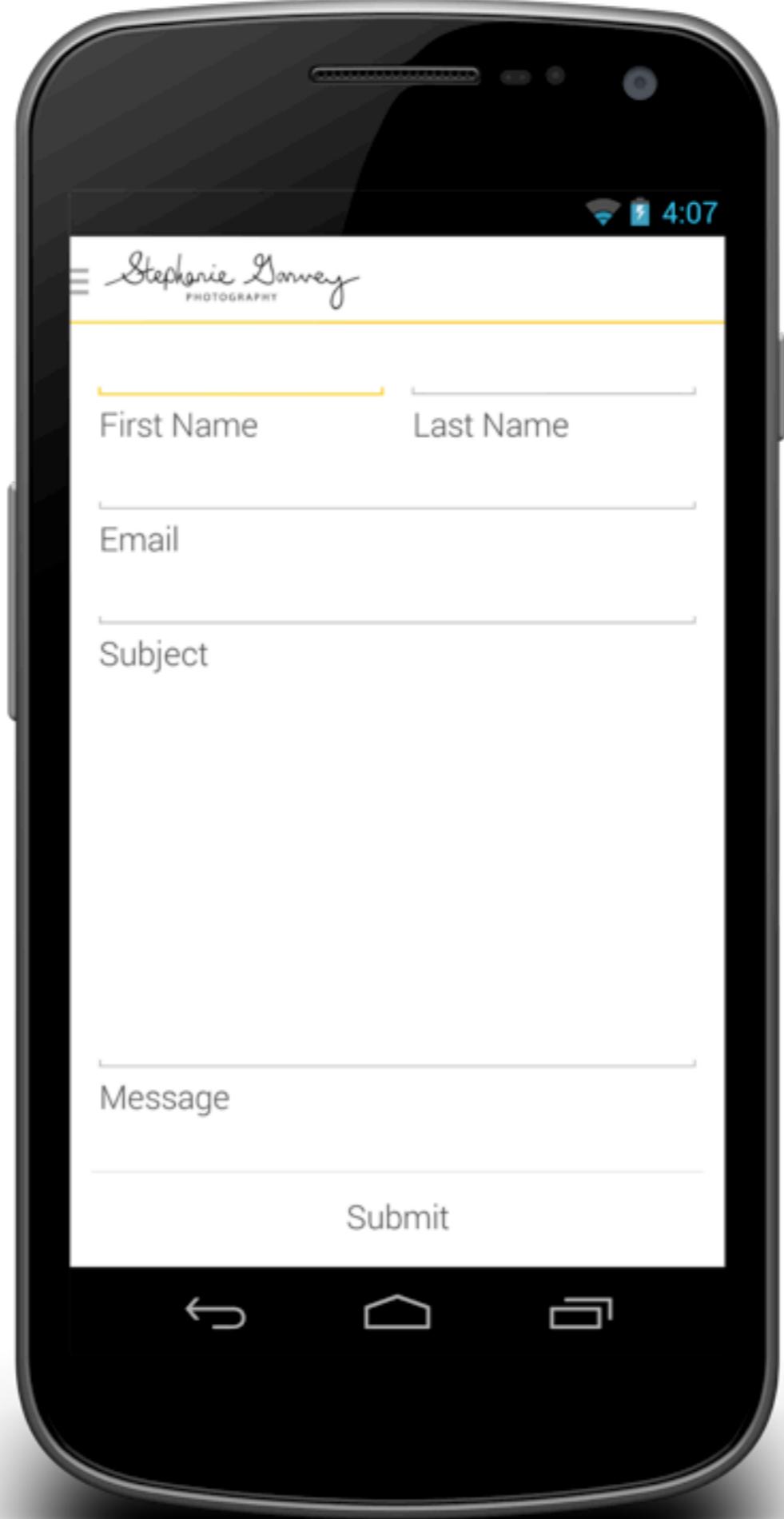
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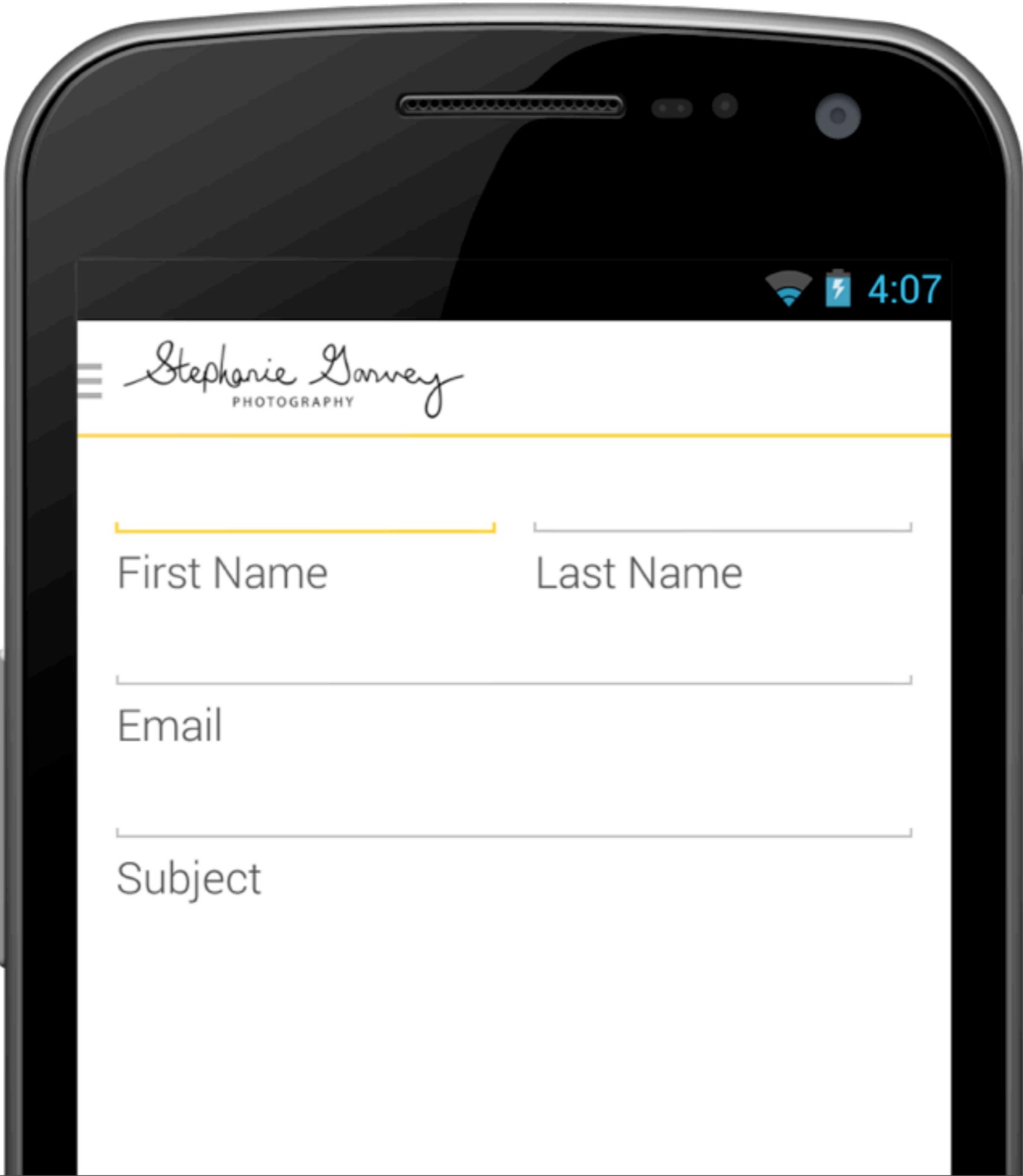
Submit











4:07

Stephanie Garvey
PHOTOGRAPHY

First Name

Last Name

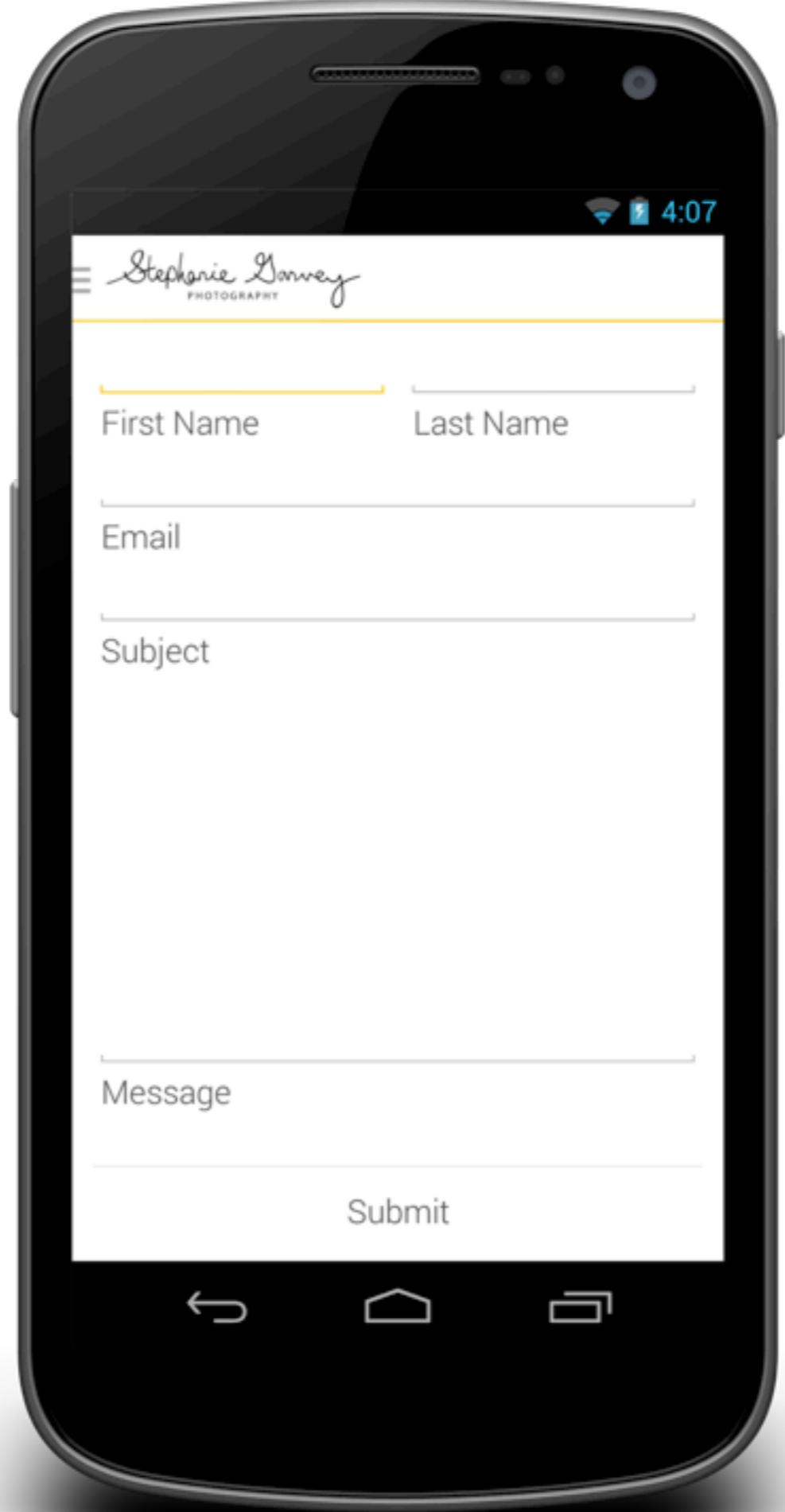
Email

Subject

Message

Submit





STYLES & THEMES

STYLES

- A collection of properties.
- Defines attributes for a single view in your app.

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <style name="TextThin" parent="@android:style/TextAppearance.Medium">
        <item name="android:textColor">#000000</item>
        <item name="android:textSize">14sp</item>
        <item name="android:typeface">normal</item>
        <item name="android:fontFamily">sans-serif-light</item>
    </style>
</resources>
```

THEMES

- Collections of styles
- Apply to entire Activity or Application

```
<color name="custom_theme_color">#b0b0ff</color>
<style name="CustomTheme" parent="android:Theme.Light">
    <item name="android:windowBackground">@color/custom_theme_color</item>
    <item name="android:colorBackground">@color/custom_theme_color</item>
</style>

<activity android:theme="@android:style/CustomTheme">
```

ADVANTAGES

- Consistency
- Easy to change
- Extend existing platform styles
- Separate design from content

RESOURCES

- Android Design Guidelines
- Android Design in Action Videos
- Designers on Google+
- Android Asset Studio
 - <http://android-ui-utils.googlecode.com/hg/asset-studio/dist/index.html>
- Android Device Frame Generator
 - <http://android-ui-utils.googlecode.com/hg/asset-studio/dist/device-frames.html>

Android Holo Colors Generator

<< Android Asset Studio

The **Android Holo Colors Generator** allows you to easily create Android components such as edittext or spinner with your own colours for your Android application. It will generate all necessary nine patch assets plus associated XML drawables and styles which you can copy straight into your project.
If you have any question, please refer to the [FAQ](#) or [report an issue](#).

Theme Name

Used in styles.xml and themes.xml

AppTheme

Color



Theme

HOLO LIGHT

HOLO DARK

HOLO LIGHT DARK ACTIONBAR

EditText

YES

NO

Autocomplete

No preview, see edittext

YES

NO

Button

YES

NO

Colored Button

Like Button, but colored

YES

NO

CheckBox

YES

NO

Radio

YES

NO

Spinner

YES

NO

SAMPLE SOURCE CODE

[HTTPS://GITHUB.COM/MATTKRANZLER5/ANDROID-BBQ-PORTFOLIO](https://github.com/mattkranzler5/Android-BBQ-Portfolio)

**AND NOW THAT YOU
KNOW THE BASICS**

**HIRE A DESIGNER.
FOR REALS.**

THANK YOU!

MATT KRANZLER

<http://gplus.to/MattKranzler>
@mattkranzler

MATT RUNO

<http://gplus.to/MattRuno>
@dendro

