

## Gnome Business Plan



**Phase 1: Collect Underpants**

**Phase 2: ?**

**Phase 3: Profit**

## **Dan's Business meta-Plan**

**Phase 1:** Find something people love

**Phase 2:** Minimize or transform the tedious bits

**Phase 3:** Success

## Overview

1. Video: What is YouPatch?
2. Hacking Groucho
3. A Lean Startup
4. Racket and exploratory programming

## Part One

### **Play Video: What is YouPatch?**

Part Two

## **Hacking Groucho**

## The original hack (September 2013)

DrRacket + [2htdp/image](https://github.com/2htdp/image) library + a weekend of programming...



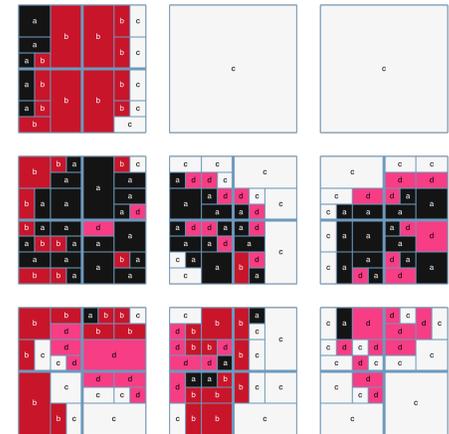
Original Groucho



Reduce resolution



Recolor



Merge "pixels"

square rectangle line text beside above overlay

## What to buy



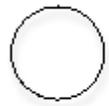
Fabric 1: 1 yard (95 cm)



Fabric 2: 3/4 yard (70 cm)



Fabric 3: 1 2/3 yard (1.6 m)



Fabric 4: 1 yard (95 cm)

## What to cut



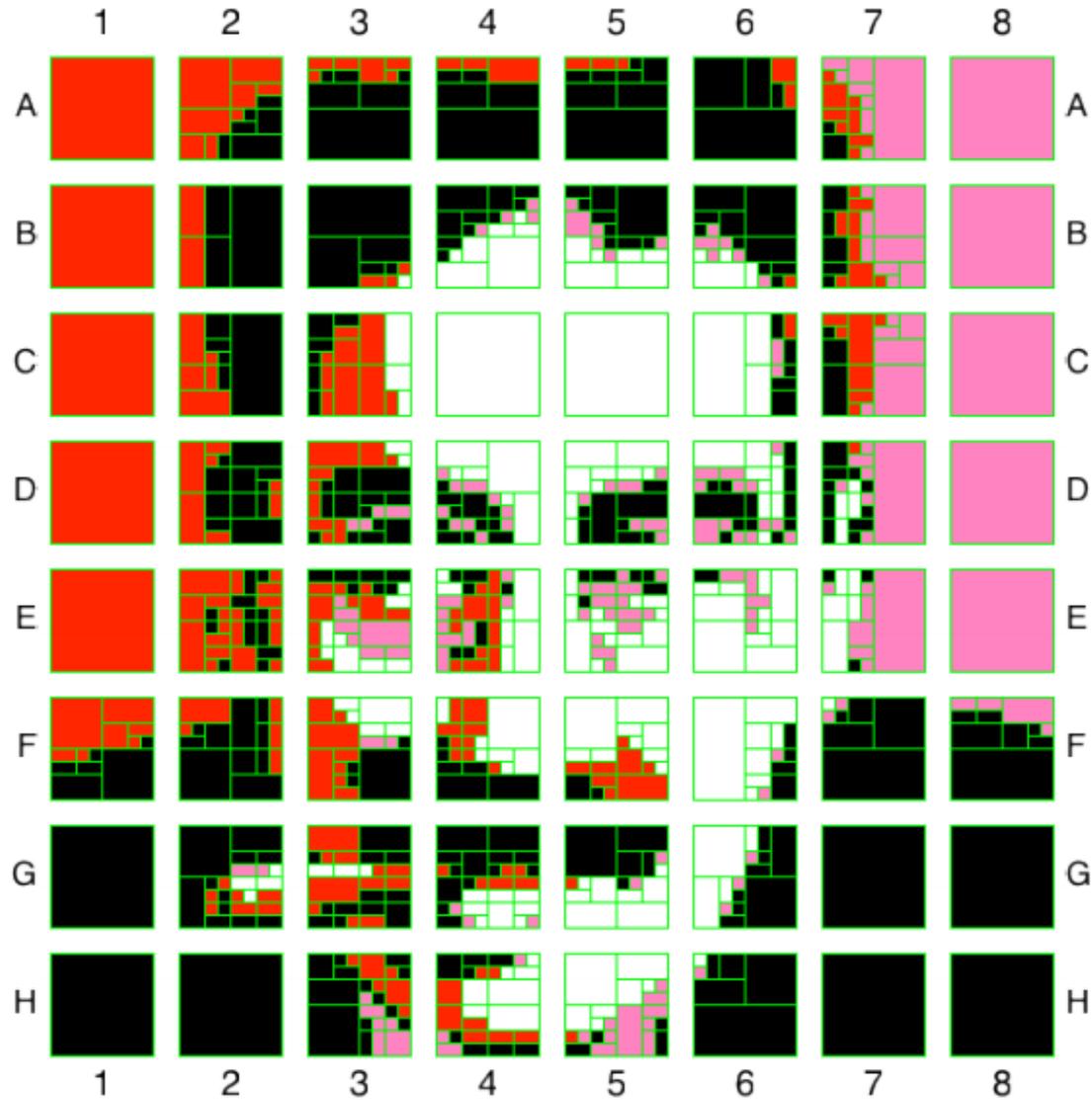
From fabric 1, cut:

- 5 squares of 8.5" x 8.5"
- 2 squares of 4.5" x 4.5"
- 23 rectangles of 4.5" x 2.5"
- 23 squares of 2.5" x 2.5"
- 77 rectangles of 2.5" x 1.5"
- 75 squares of 1.5" x 1.5"



From fabric 2, cut:

- 5 squares of 8.5" x 8.5"
- 3 rectangles of 8.5" x 4.5"
- 2 squares of 4.5" x 4.5"
- 5 rectangles of 4.5" x 2.5"
- 7 squares of 2.5" x 2.5"
- 49 rectangles of 2.5" x 1.5"
- 97 squares of 1.5" x 1.5"



## Andi and Groucho



Part Two

## **A Lean Startup**

"A Startup is an organization formed to **search** for a repeatable and scalable business model." - *Steve Blank*

#lang lean-startup

```
(define (search product market resources morale)
  (cond [(fit? product market) ???]
        [(low? resources) ???]
        [(failing? product market) ???]
        [(low? morale) ???]
        [else ???]))

(search MVP initial-market ...)
```



## The Initial Market and MVP (minimum viable product)

YouPatch is a web-site where Patchwork Quilters can

- i. Upload an image
- ii. Pixelate and edit for **free**
- iii. Pay to download a customized PDF for 9.50 USD

## Our Team



**Patch Andi**

Domain Expert, Marketing, etc.



**Dan Prager**

R&D, UX, Agile, etc.

*Racket, Scribble, Bootstrap*



**John Barham**

Web design, development, deployment, etc.

*Python, Django, Mezzanine, JavaScript, Bootstrap*

## **Product Design Challenges**

- Make YouPatch easy to learn and use
- Key Trade-off: Image detail vs Ease of making
- Apply a User-Centered Design philosophy
  - Users make decisions, and exercise their creativity
  - Software handles the tedious bits

## Product Development Challenges

- Research
  - Color reduction algorithm
  - Custom PDF generation
- Development: Racket in production
  - Performance?
  - Integration with other tech?

We started with a teaser site (December 2013)



Turn your favorite image into a stunning quilt!

**Coming soon:** YouPatch makes pixel quilt design easy and fun.

1. Upload



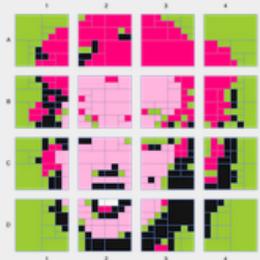
2. Pixelate



3. Recolor & tweak



4. Finish & order



5. Awesomeness!



**FREE Marilyn Pattern**

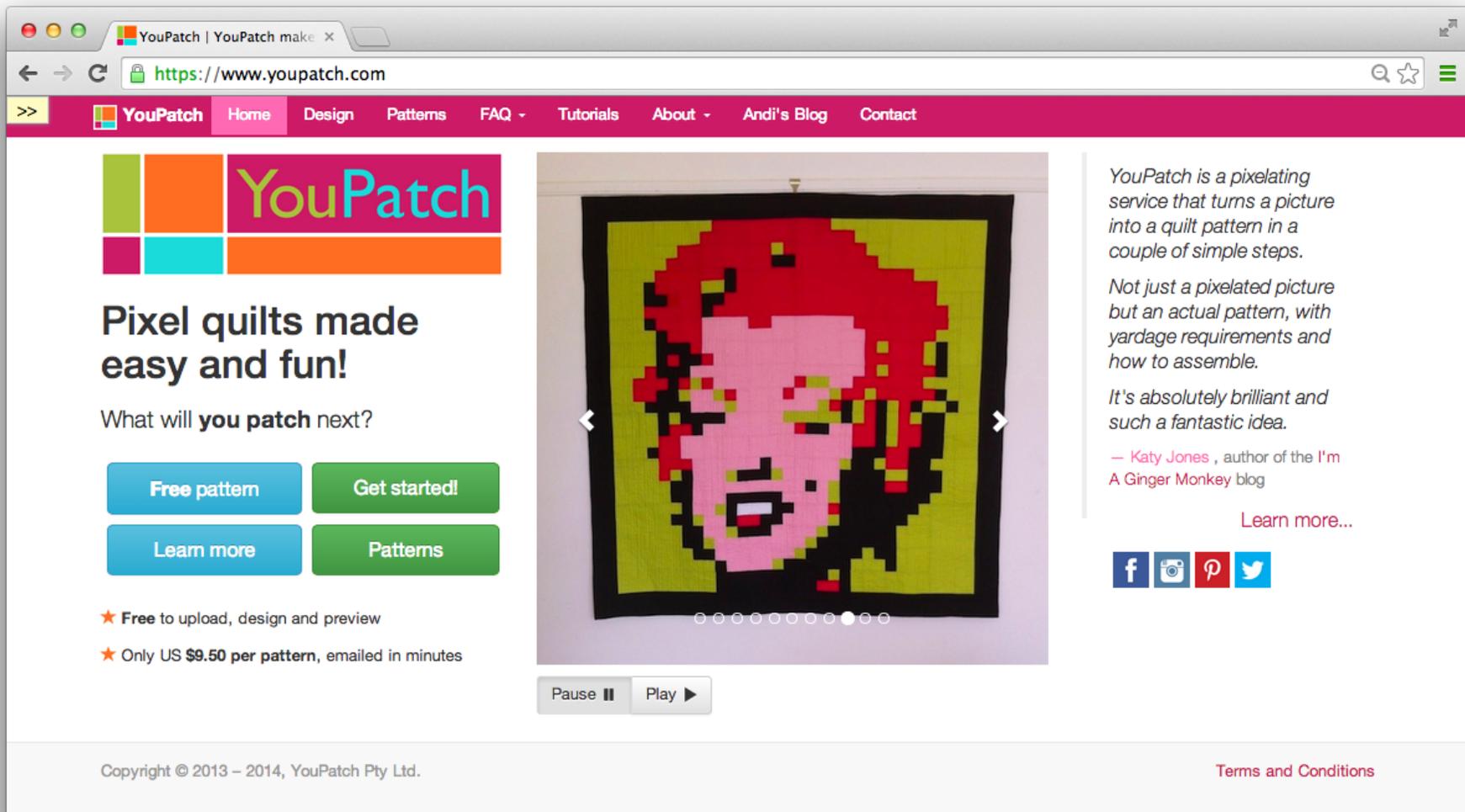
Register for updates and we'll send you the Marilyn pattern for free.

Your name

Email

Register

In February 2014 we launched!



The screenshot shows the homepage of the YouPatch website. The browser address bar displays "https://www.youpatch.com". The navigation menu includes "Home", "Design", "Patterns", "FAQ", "Tutorials", "About", "Andi's Blog", and "Contact". The main content area features the YouPatch logo, the headline "Pixel quilts made easy and fun!", and a call to action "What will you patch next?". Below this are four buttons: "Free pattern", "Get started!", "Learn more", and "Patterns". A central image shows a pixelated quilt pattern of a woman's face. To the right, a testimonial from Katy Jones is displayed, along with social media icons for Facebook, Instagram, Pinterest, and Twitter. The footer contains the copyright notice "Copyright © 2013 – 2014, YouPatch Pty Ltd." and a link to "Terms and Conditions".

YouPatch | YouPatch make x

https://www.youpatch.com

YouPatch Home Design Patterns FAQ - Tutorials About - Andi's Blog Contact

 **YouPatch**

## Pixel quilts made easy and fun!

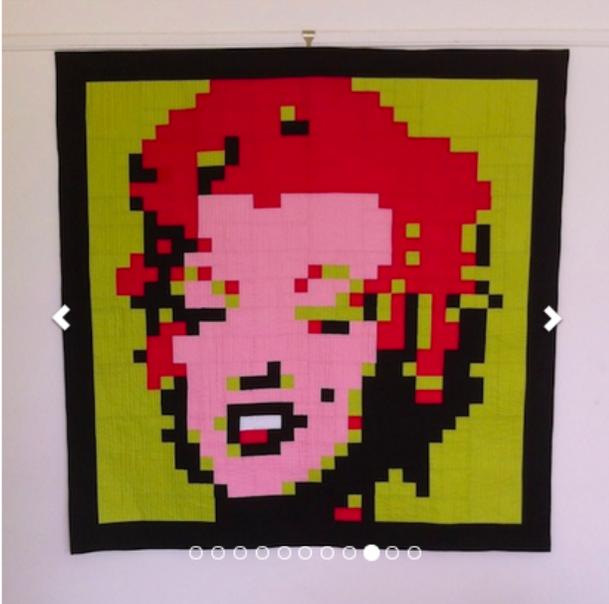
What will **you patch** next?

[Free pattern](#) [Get started!](#)

[Learn more](#) [Patterns](#)

★ Free to upload, design and preview

★ Only US \$9.50 per pattern, emailed in minutes



Pause || Play ▶

YouPatch is a pixelating service that turns a picture into a quilt pattern in a couple of simple steps.

Not just a pixelated picture but an actual pattern, with yardage requirements and how to assemble.

It's absolutely brilliant and such a fantastic idea.

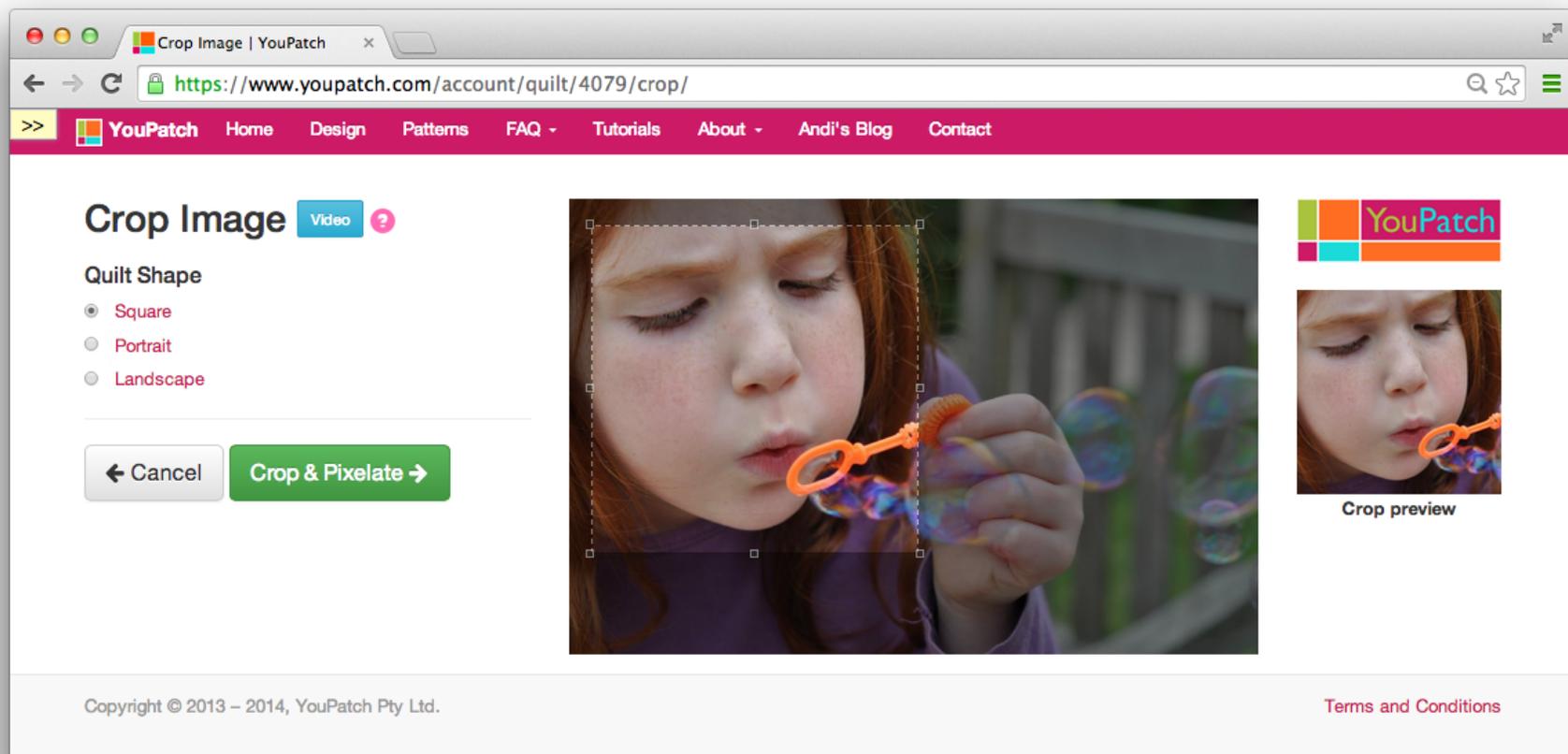
— Katy Jones, author of the I'm A Ginger Monkey blog

[Learn more...](#)

[f](#) [i](#) [p](#) [t](#)

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## Step 0. Upload image & crop



## Step I. Pixelate

The screenshot shows a web browser window with the URL <https://www.youpatch.com/account/quilt/4079/pixelate/>. The page features a navigation bar with links for Home, Design, Patterns, FAQ, Tutorials, About, Andi's Blog, and Contact. The main content area is titled "Pixelate" and includes a "Video" link and a help icon. Below the title are three settings: "Level of detail" set to "High", "Number of colors" set to "4", and "Quilt size" set to "64" x 64"". A "Quilt statistics" section shows a complexity of 3 stars and lists: "32 to 46 hours to make this quilt top (estimated)", "1140 pieces vs 4096 pixels", and "18 pieces/block average vs 64 pixels/block". A "Size information" section lists: "Number of blocks: 8 x 8 = 64", "Finished block size: 8" x 8", and "Smallest finished square: 1" x 1"". A green "Recolor" button is at the bottom left. The central image is a pixelated version of a child's face with orange glasses. The right sidebar has a "Re-crop image" link, a "Design steps" section with a list: "1. Pixelate", "2. Recolor", "3. Edit pixels", and "4. Finish & Order", where "1. Pixelate" is highlighted in a pink box.

## Step 2. Change fabric colors

Recolor Image | YouPatch x

https://www.youpatch.com/account/quilt/4079/recolor/

YouPatch Home Design Patterns FAQ - Tutorials About - Andi's Blog Contact

### Recolor Video ?

Palette Select New Color

Original	New
<input type="radio"/> Smoke	<a href="#">change color</a>
<input type="radio"/> Taupe	<a href="#">change color</a>
<input type="radio"/> Mahogany	<a href="#">change color</a>
<input type="radio"/> Earth	<a href="#">change color</a>

Show pixels for selected color ?

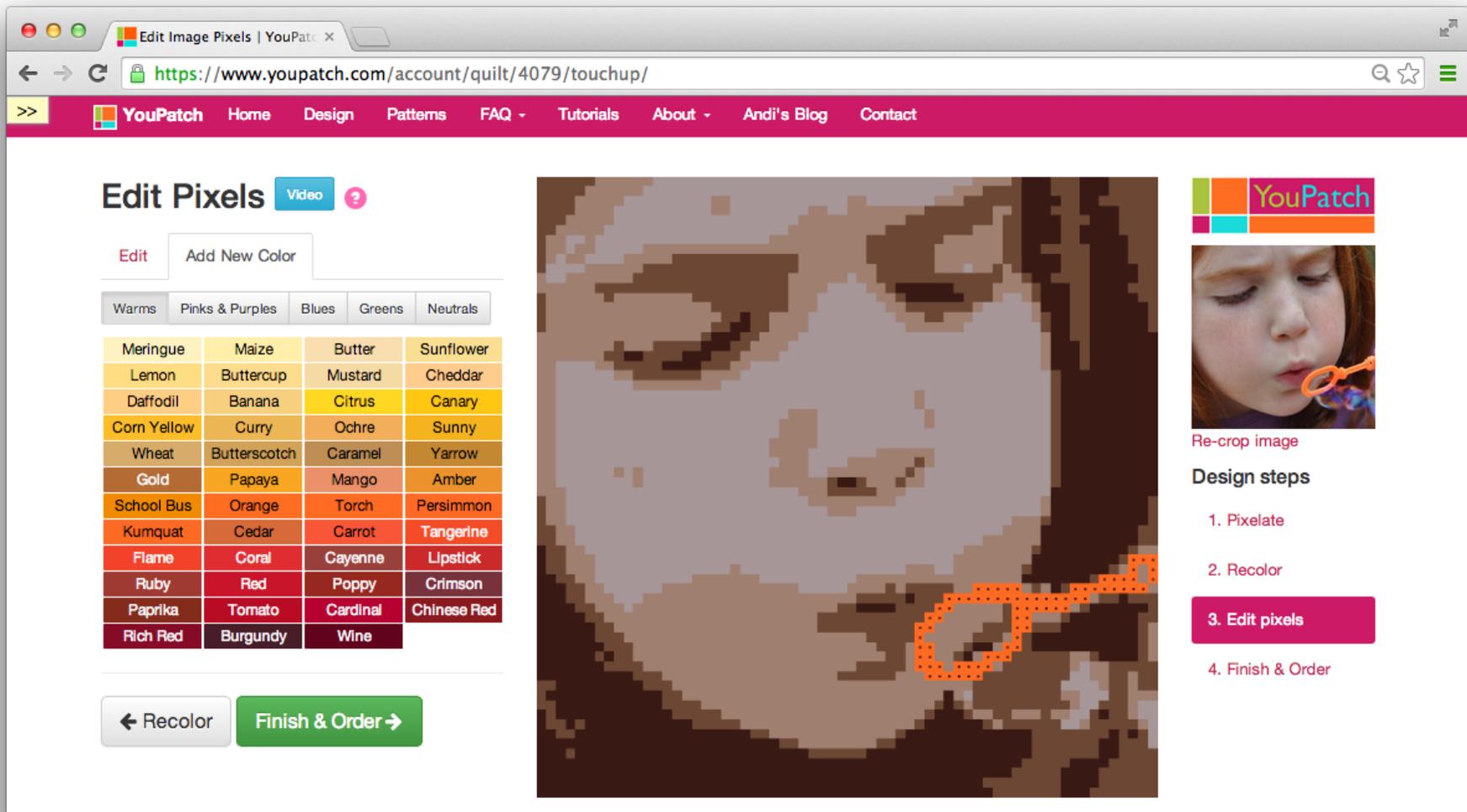
[← Pixelate](#) [Edit pixels →](#)

Re-crop image

#### Design steps

1. Pixelate
- 2. Recolor**
3. Edit pixels
4. Finish & Order

## Step 3. Edit individual pixels



Edit Image Pixels | YouPatch

<https://www.youpatch.com/account/quilt/4079/touchup/>

YouPatch Home Design Patterns FAQ - Tutorials About - Andi's Blog Contact

### Edit Pixels [Video](#) ?

Edit

Warms Pinks & Purples Blues Greens Neutrals

Meringue	Maize	Butter	Sunflower
Lemon	Buttercup	Mustard	Cheddar
Daffodil	Banana	Citrus	Canary
Corn Yellow	Curry	Ochre	Sunny
Wheat	Butterscotch	Caramel	Yarrow
Gold	Papaya	Mango	Amber
School Bus	Orange	Torch	Persimmon
Kumquat	Cedar	Carrot	Tangerine
Flame	Coral	Cayenne	Lipstick
Ruby	Red	Poppy	Crimson
Paprika	Tomato	Cardinal	Chinese Red
Rich Red	Burgundy	Wine	

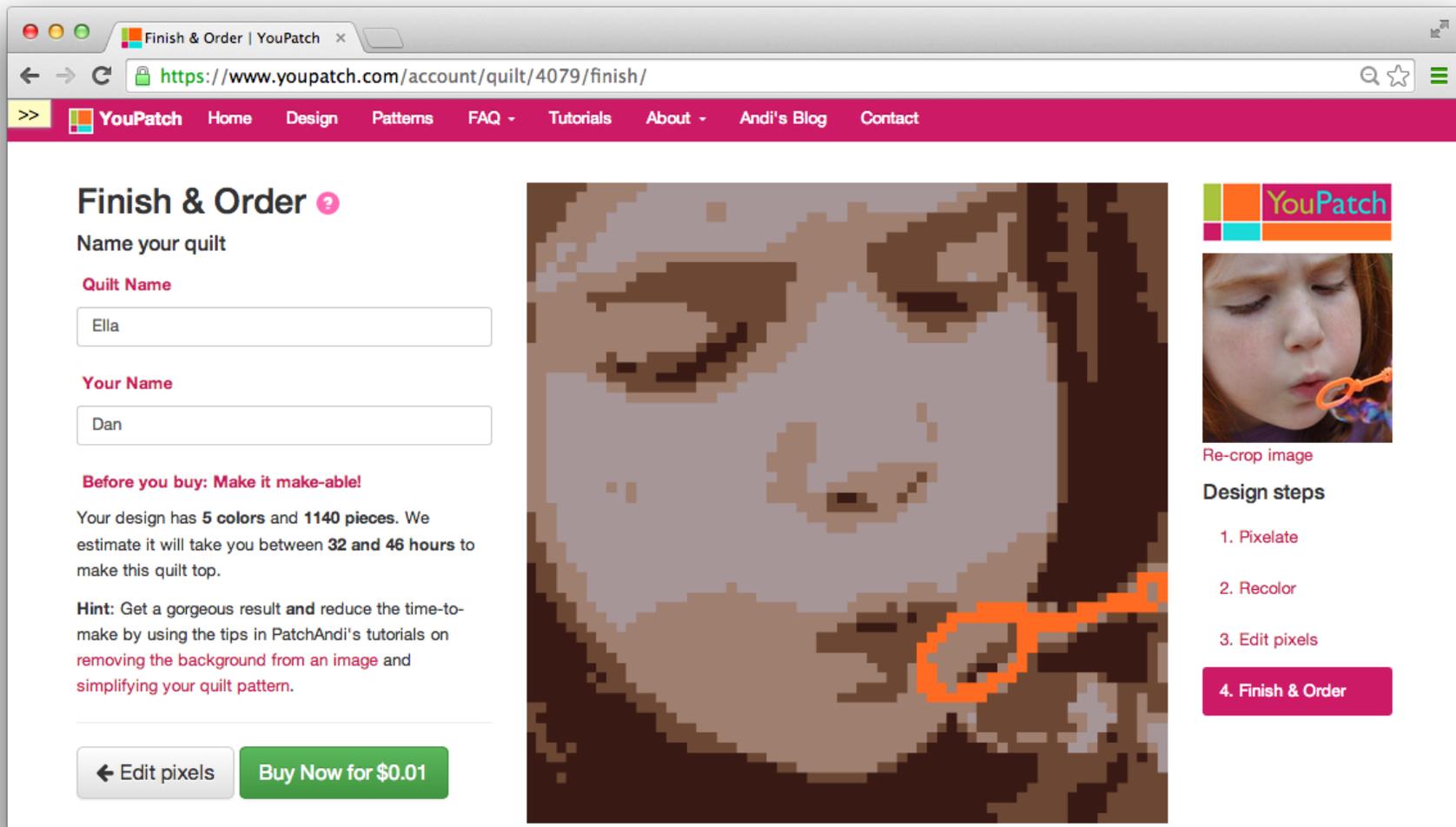
← Recolor

Re-crop image

#### Design steps

1. Pixelate
2. Recolor
3. Edit pixels
4. Finish & Order

## Step 4. You pay \$9.50 for a customized PDF pattern



The screenshot shows a web browser window with the URL <https://www.youpatch.com/account/quilt/4079/finish/>. The page title is "Finish & Order". The navigation menu includes: YouPatch, Home, Design, Patterns, FAQ, Tutorials, About, Andi's Blog, and Contact.

**Finish & Order** ?

Name your quilt

**Quilt Name**

**Your Name**

**Before you buy: Make it make-able!**

Your design has **5 colors** and **1140 pieces**. We estimate it will take you between **32 and 46 hours** to make this quilt top.

**Hint:** Get a gorgeous result **and** reduce the time-to-make by using the tips in PatchAndi's tutorials on [removing the background from an image](#) and [simplifying your quilt pattern](#).

[← Edit pixels](#) [Buy Now for \\$0.01](#)



**Design steps**

1. Pixelate
2. Recolor
3. Edit pixels
4. **Finish & Order**

[Re-crop image](#)

# From the 19 page pdf...

## Front page

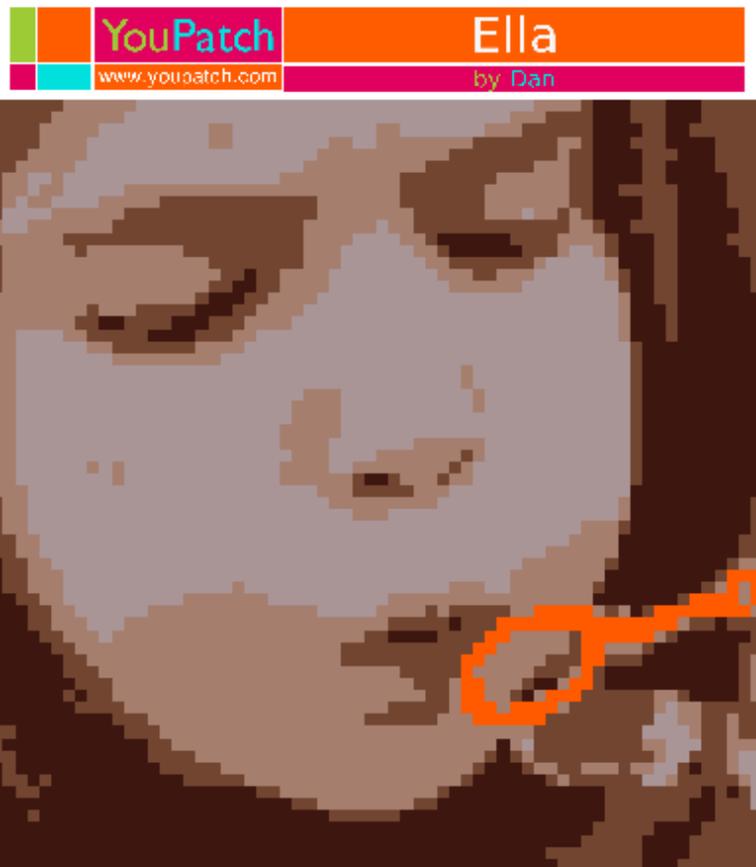


Figure 1: Ella by YouPatch and Dan on August 30, 2014

## Customised instructions

### 1 License

The Ella quilt pattern is licensed strictly for personal use to Daniel Pinger (daniela.pinger@gmail.com). It may not be re-sold, given away, or otherwise distributed without permission from YouPatch Pty Ltd. Please consult [www.youpatch.com/faq/private-licensing](http://www.youpatch.com/faq/private-licensing) for details.

Note that production of more than one or two quilts for sale based on this pattern requires additional licensing. Please email [info@youpatch.com](mailto:info@youpatch.com) if you wish to discuss a commercial license.

### 2 About the Ella quilt

- Finished block size: 8" x 8"
- Finished quilt size: 64" x 64"
- Seam allowance: 1/4"

### 3 Fabric Yardage

- Kona Smoke: 1 1/2 to 1 3/4 yards
- Kona Earth: 1 to 1 1/4 yards
- Kona Taupe: 1 1/2 yards
- Kona Mahogany: 1 1/4 yard
- Kona Torch: 1/4 yard

#### Notes

- When a range is given, the first number is a tighter estimate, while the second is more generous to allow for the odd mis take, and stashing. See **Appendix B** for illustrations.

- The names of the fabrics refer to the Robert Kaufman Kona Cotton Solids range.
- Please note that colors can and do display differently on different monitors and print differently.

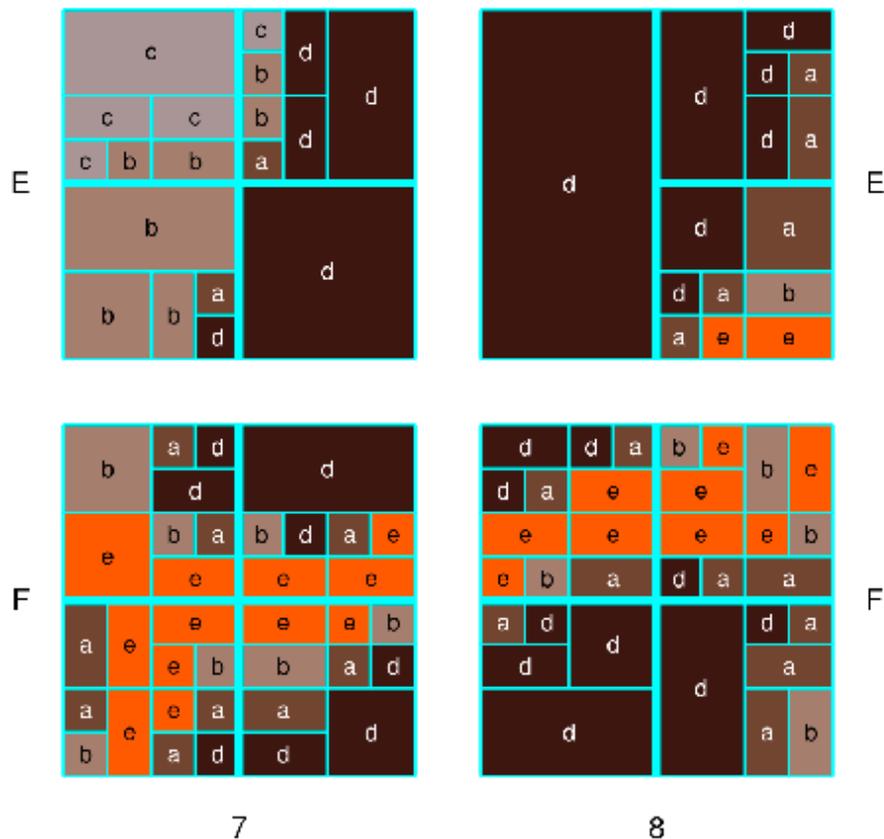
### 4 Cutting the Fabric

You will be cutting a total of 1140 pieces for the quilt top. See **Appendix B** for an efficient cutting scheme:

- **Kona Smoke**
  - cut 4 squares of 8 1/2" x 8 1/2"
  - cut 11 rectangles of 4 1/2" x 8 1/2"
  - cut 8 squares of 4 1/2" x 4 1/2"
  - cut 33 rectangles of 2 1/2" x 4 1/2"
  - cut 26 squares of 2 1/2" x 2 1/2"
  - cut 70 rectangles of 1 1/2" x 2 1/2"
  - cut 55 squares of 1 1/2" x 1 1/2"
- **Kona Earth**
  - cut 1 rectangle of 4 1/2" x 8 1/2"
  - cut 3 squares of 4 1/2" x 4 1/2"
  - cut 16 rectangles of 2 1/2" x 4 1/2"
  - cut 34 squares of 2 1/2" x 2 1/2"
  - cut 133 rectangles of 1 1/2" x 2 1/2"
  - cut 145 squares of 1 1/2" x 1 1/2"
- **Kona Taupe**
  - cut 5 rectangles of 4 1/2" x 8 1/2"
  - cut 5 squares of 4 1/2" x 4 1/2"
  - cut 28 rectangles of 2 1/2" x 4 1/2"
  - cut 38 squares of 2 1/2" x 2 1/2"
  - cut 142 rectangles of 1 1/2" x 2 1/2"

# Packing in the value...

## Quilting by numbers



- a ● Kona Earth    c ● Kona Smoke    d ● Kona Mahogany    e ● Kona Torch
- b ● Kona Taupe

## Cutting guide

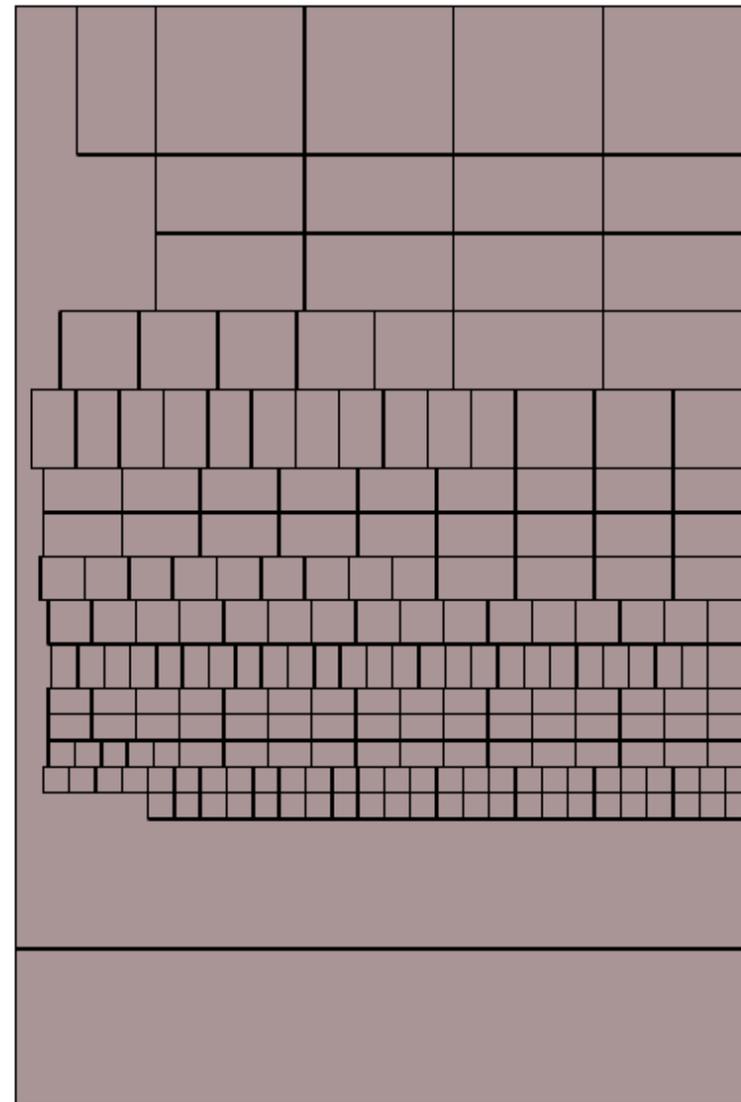
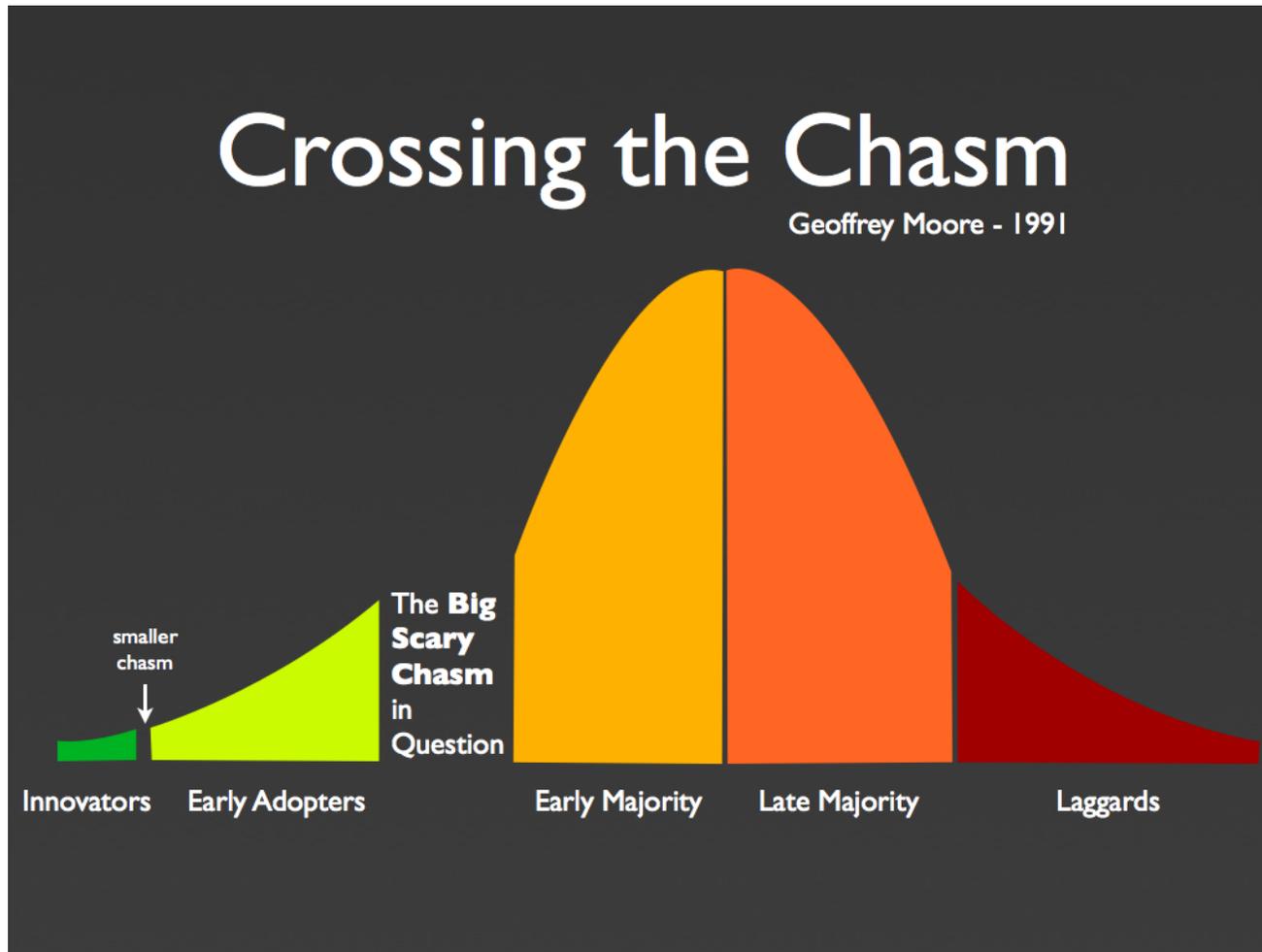


Figure 18: Kona Smoke: 1 1/2 to 1 3/4 yards

## The challenge...



## What our customers are making...



## Featured in Aussie & UK quilting magazines




**YOU PATCH**

Launched by Australian quilter Andi Herman, new website, [youpatch.com](http://youpatch.com) aims to make the process of designing a pixel quilt from your favourite pictures easy! Simply upload your image and create a quilt-ready version of your pic. Once you've decided on your design, YouPatch (for a fee) will send you a PDF of your quilt pattern, complete with fabric yardage (with colours matched to Kona Cotton Solids), cutting instructions, piecing instructions and glorious full colour diagrams. What are you waiting for?

e.g. *Love Patchwork & Quilting* - March 2014

## Collaboration with fabric manufacturers



*e.g. Robert Kauffman Fabrics*

## **Not there yet ...**

- Support for our early adopters
  - Personalised support
  - Email newsletters
- Reaching the mainstream
  - Quilt and craft shows, US magazines
  - Iterate
  - Positive pivot?

## Part Three

# **Racket and exploratory programming**

## Why Racket?

- Low barrier to entry; no real limits
- Fast, quality feedback:
  - DrRacket REPL, Racket community
- Powerful, clean abstractions. E.g.:
  - 2htdp/image, Scribble
- R & D, production, integration

## **Options for creative programmers**

- Hobby programming
- Academia
- Regular job
- Startups

- **Why startups?** Fun, Freedom, Fame, Fortune
- **Why not?** Fear of failure, Feed the family
- **How?**
  - Self-funded: low cost (mainly sweat), low risk, DIY
  - Lean Startup approach and Agile development
  - Smart technology choices - e.g. Racket

## Q & A

## Links

- [www.youpatch.com](http://www.youpatch.com)
- daniel.a.prager@gmail.com
- @agilejitsu