

# Matchlight - A UX Design Case Study

Note: Due to NDA, I can not share screenshots and images beyond the publicly facing marketing materials. Nor can I get into feature-specific details. What I have done in this Case Study is approach my process as it related to the role I played in the development of this product.



## PART I - About Matchlight

Matchlight is a Digital Risk Protection (B2B SaaS) solution that monitors large and diverse data sets for customer asset exposure across the deep, dark and open web. It offers unparalleled privacy to users, with its patented Fingerprinting technology. Essentially, Matchlight crawlers can “find a needle in a haystack, without seeing the needle” and then alert customers that their “needle” was found.

I was part of the Terbium Labs team, for approximately two years, as the lead (and sole) product designer. During that time, I worked with my VP of Product, Product Manager and Engineering teammates to completely redesign and launch a new Matchlight portal for both customers and admins.

When 2019-2021

Platform: Desktop application

**Role:** Lead/Sole Designer responsible for redesign of Customer and Analyst Portals

**Deliverables:** Key Requirements, Discovery, Competitive Analysis, User Interviews, User Surveys, Card Sorting, User Flows, Wireframes, Mock-ups, Prototypes, Usability Testing, Animation

**Tools:** Figma, InVision, Photoshop, Pen & Paper.

## [Solution](#)

### The Problem

The original product focused solely on dark web data intelligence and though Terbium Labs was one of the pioneers in the field, there were an increasing number of competitors with broader scope and newer, easier-to-use products. Customers did not seem to understand our key differentiator- the fingerprinting process and were not utilizing this option optimally. Customer retention for the original version was low, and the customers they had retained, relied heavily on human analysts for alerting and reporting, rather than utilizing the portal. Accordingly, costs were high and scalability was limited.

The old portal was dated and confusing, with the majority of valuable insights either buried in a complex flow or contained solely in the human generated reports.

### The Solution

The new Matchlight customer portal featured a streamlined, "social media" inspired layout. A feed of curated alerts anchored by data visualizations that quickly tell the story of "who, what, when, where and how?" Alerting for all asset types was combined into a single feed, featuring always visible, "lay of the land" insights. The focus was on simplicity, visibility, ease of use and reducing noise.

## PART II - MY PROCESS

### Research - Discovery, User Interviews and Competitive Analysis

I began my research with interviews and competitive analysis, While interviewing stakeholders, customers and analysts I also determined which products to focus on for competitive analysis. I wanted to know what other tools our customers were utilizing or evaluating alongside ours, so I could identify gaps our customers felt our product didn't fill. I sought to identify what problems our customer base had, that our tool was not solving for them, as well as what problems our tool solved and might be a differentiator we could improve on.

Though I didn't have direct access or login capabilities, I scoured YouTube and competitor websites for demo videos to get some understanding of the UI, dashboards, features and capabilities in competitors products. Some products I looked at were Recorded Future, Intsights, RiskIQ, Blueliv, ZeroFox...

Customers' needs were obviously different from our analysts' needs, but there was a relationship between the two. From customer interviews, I determined that the biggest issue with most products was not depth of insight but time needed to find information. Customers wanted to minimize the amount of logins and noise. Logins to separate portals or even the same portal, as well as the amount of time they spent digging for information, particularly different types of information. They wanted information quickly, in one place and they wanted summaries. Breadth of information seemed to be a secondary priority.

Analysts, similarly, needed information they could scan and evaluate quickly, so that they could filter noise and get important information in front of customers quickly.

## User Stories and Flows

In conjunction with Product Management, we came up with a list of User Stories that we could prioritize and narrow down for an MVP. This supplied the information I needed to explore user flows for these tasks and a way to combine information to have the simplest user flows to perform these tasks.

Though at this stage in planning and design our focus was on MVP functionality, I generally like to be mindful of future possibilities, room to scale and possible future enhancements. I like to design with a grand vision in mind, based on conversations with users, so there is room to quickly scale but also pivot after future, new research and planning efforts. I like to dream big and then pull functionality out, rather than start small and cobble on expansions.

## Sketching, Wireframing and Testing

My proposed solution for the customer portal was a kind of "social media" inspired feed, with three columns offering different kinds of summaries. Information, in a familiar layout, that could be scanned at quick initial glance.

All alerts, regardless of the source, type of asset or severity would be part of a chronological news feed, similar to Twitter, Facebook or LinkedIn. Powerful filtering would offer control and customization of the feed. I made up a series of sketches and paper prototypes to see what

configuration of summaries or breakdowns of information, on the panels surrounding the news feed, had users digging the least.

I also looked for "indicators of delight" as I like to call it. That unquantifiable expression of joy in seeing something that serves particular needs.

## Digital Wireframes, Prototyping and Usability Testing

This led to a series of digital wireframes that I could use for more specific usability tests. This was to ensure the user stories that we had identified as most important were encompassed by easy to perform operations. In conjunction with some card sorting, it also allowed me to explore language choices and information architecture.

For the analyst portal, I tested two options. In the first option, the analyst portal was separate from the customer portal but fed information. In the second option I created only one portal, with RBAC controls allowing for larger read/capabilities. This second option allowed the analysts to perform tasks more quickly and seamlessly.. We also offered the option of a quick toggle, to view "as customer."

## Branding and Visual Design

Branding for the external website, logo and marketing materials was handled by the marketing department. They selected the fonts and primary color palette.

Working alongside marketing, I was responsible for the visual design of the portal, data visualization and analyst reports. My approach was to prioritize the data visualization and build the rest of the visual design in a supporting role.

I started with five possible color palettes that each served different purposes, but could interplay successfully with each other. This may seem like a lot of colors, but the portal still retained the sense of minimalism that I was aiming for, so that the visualizations could rise to the fore and still retain a feeling of calm.. It also afforded necessary power and accessibility to the charts and graphs and emphasis where information was most important. In this regard, I used color as language rather than decoration and leveraged a wide vocabulary.

The first palette was the brand palette supplied by marketing. The signature Terbium Labs blue, orange and gray.

The second palette of five colors was the "traffic light" or hierarchical palette. These colors indicated severity and a relationship between data points. I chose vibrant, cool red and a warm teal to anchor the endpoints of this palette and keep it quite modern.

The third and most challenging palette was for the categorical data. I had four requirements for this palette

1. As many colors as possible, for a wide variety of data points.
2. Colors that were as distinct as possible from each other, for readability and distinguishability, as thin lines or points on a chart/graph.
3. Colors were equally weighted/strong, so as not to convey any hierarchical relationship with one another
4. Did not contain any of the colors in the traffic light. So as not to look like some of the data was hierarchical

To achieve these four challenging requirements, I stuck mostly with a series 20 cool blues, purples, pinks (which is theoretically tinted red, but for these purposes doesn't read as red/alarming) and browns. I leveraged variety in saturation to afford as many possible colors.

The fourth palette consisted of two separate gradients for scales, with bright colors to represent low values, while the dark colors represent high values as this proves to be most intuitive for most readers

The fifth and final palette was a series of grays for text, backgrounds and lines. These grays allow for the delineation and association of space, without competing with vast amount of colors in our visualizations. It helps to anchor the site in a feeling of calm.

I ran tests on color combinations for accessibility, contrast and vision differences to optimize my choices.

As a deliverable, I created a style guide and the beginnings of a component library.

## Hi Fidelity Mock-ups and Prototyping

With initial visual design decisions in place, I created a series of mock-ups of both a "vision" for the ideal product, as well as MVP. I used these mockups to build out prototypes in inVision. Prototypes were used for further usability testing, as well as for demos.

## Product

We released our MVP within 6 months of my joining Terbium Labs. After initial release we continued adding features through an agile development cycle of iteration. I would usually work on research, design and usability testing a few weeks ahead of development sprints.

Throughout our iterative cycles, I performed a cycle of interviews, conversations and usability testing with users of the tool. For instance, if management or customer success would tell me

that a user requested a particular feature, I would aim to have a conversation that might unearth the particular problem our user was experiencing and believed would be solved by said feature. Oftentimes, there was a simpler or alternative solution.

After 2 years with Terbium Labs and approximately 1.5 years after initial launch, the re-envisioned Matchlight was acquired by Deloitte.