

## Introduction

### 2022 Year in Review

The PXF organization was formed in Sep 2021 bringing together Ivy, PXT DaaS, Stencil, and Inside Amazon in support of a connected one stop Intranet experience (109 OP2 HC). In Feb 2022, the Learn organization (50 HC) and the MyDocs organization (39 HC) moved into PXF, bringing the total HC to 198. As of Jun 9 2022, PXF BIS+Pending is at 178, with an expected end of year BIS of 197, based on current recruiting velocity.

We prioritized recruitment for the PXF Content Services team responsible for the Inside Amazon, Search and CMS projects (0 HC on Jan 1, 22 BIS+Pending as of Jun 9). We adopted a Steam goal to reduce search abandonment rate from 57% in Q4 2021 to 30% by Dec 22. We launched tactical improvements to the existing Inside Amazon search, securing short term value for Amazonians, while building a new search stack based on Kendra, and launching Adobe Experience Manager (AEM) as a headless CMS, supported by a PXT content strategy developed in partnership with AET. We took over the operational responsibility of AEM as the legacy HR CMS, addressing a number of security, privacy, and data pipeline gaps. We implemented 1,215 recommended result links including the top searched terms and tools, key employee events, country and building names, and we implemented Geo Relevant filtering in the legacy search stack. We will launch a new Kendra-based search experience on Inside Amazon by Nov 30 that simplifies for Amazonians by joining together Internal Search and Inside Amazon Search, and will onboard our first two customers, Benefits and Disability & Leave Service (DLS) to the PXT headless CMS, ensuring their content is surfaced through Search.

The PXF Experience team responsible for Ivy, Stencil and Phone Tool prioritized customer features that will serve as foundations to our 2023 roadmap. By Aug 12 we will ship a new side-navigation and Stencil components, enabling the Ivy navigation to support manager workflows at scale, and the integration of AET Manage My Team (MMT) in Q3. We invested in the Ivy Help Center team with a new back-end service for automated translation of content and enhanced content navigation with FAQ anchor linking. By Dec 2022, we will launch (1) the Ivy SDK feature access service, enabling experience builders to filter widget presentation by employee population, (2) the Reverse Proxy service, to manage the flow of URL requests between widgets, (3) a single point of authentication for all applications federated in Ivy, and (4) a widget Automation service enabling developers to bootstrap their widget application, pipeline, and integration test packages. In combination, these services will reduce the time it takes to onboard a new widget experience to Ivy from approximately 2 weeks to < 1 day.

The PXF Data Services team owns PXT DaaS, a central data store for PXT data sets providing secure ingestion and custody of data and supporting streaming and bulk ingestion modes. We launched the PXT DaaS portal, which provides a UI for data producers and consumers to manage and consume data sets, reducing the time it takes to ingest data sets from days in HRRC down to less than 5 minutes. We are on track to complete our 2022 roadmap addressing self-service schema management, self-service row and column level permissions, support for Parquet format data, and data quality alarming. By Dec 31 we will have migrated 80% of HR Redshift Cluster data sets to PXT DaaS, in partnership with GTMC Science team.

The PXF MyDocs team owns the experience and services supporting generation and signing for employee and associate documents. The team prioritized 3 workstreams in 2022, (1) digital signing support for EU employee documents, (2) automate 83% of data collection addressing generation of 275K employee documents per year, and (3) Host MyDocs stack and portal on AWS to reduce mean time to resolve high impact doc generation failures from 8 hours to 4 hours.

We relaunched the PXF Learn organization under a new Director starting Jul 11, with a mission to build a multi-tenant Learn Management System (LMS) providing a one stop experience for Learn Administrators to build, manage and deploy learn plans, and simplify the experience for learners by reducing the number of places they need to go to learn from 11<sup>1</sup> to 1. We established the PXF-UX team to support all UX Research and Design needs for PXF. Finally, we ran the PXT Operations Review in partnership with GTMC, raising the technical operations bar through dashboard and COE reviews and will be launching by year end MCM and COE bar raiser programs as well as a cross cutting availability program.

### 2023 Vision

Today, corporate employees do not have a single, authoritative portal to find resources and tools to help them conduct tasks associated with their employment, their career, their development, their benefits, or to learn about Amazon culture. Between Apr 2021 and Mar 2022, corporate employees conducted 12M searches on Inside Amazon with 36% of those relating to tools or applications hosted outside of Inside Amazon and an abandonment rate of ~57%. In May 2022, we ran a survey with responses from 563 HRBPs, HRP, HR Managers and HR Specialists/Assistants. We asked how many questions they receive per week that led to them sharing a resource that could have been discovered directly by an employee. The answers received present an estimated aggregate 74 hours per year per HR role. To quote a HR Manager, *"The most time wasted is finding resources and that is often where managers reach out as well. They know a resources is out there, looked for it, gave up and then default to asking HRBP"*.

<sup>1</sup> Ingenii, Umbrella, Learning Genome, Thinking Cap, Broadcast, Wiki, Kiku, L&D Coach, AWS Learning Portal, Manager Learning Hub, Engineering Excellence

In 2023, PXF will address these pain points by relaunching Inside Amazon, as a single point of entry for Corporate Employees to look for help, and connecting them to people, tools, resources, and life at Amazon. On desktop, Inside Amazon will feature global search and a common navigation that will connect corporate employee experiences, abstracting the fragmentation of frameworks on which these experiences are deployed. Our partner team, AtoZ, will deliver a corporate mobile experience featuring search, and consistent with the AtoZ framework and experience patterns.

Our OP1 plan addresses this vision through four pillars: (1) Improving the digital information experience for Amazonians, (2) Enabling federated development for experience builders, (3) Enabling Producers and Builders to deliver great Digital Experiences, and (4) Simplifying learn for administrator and learners through a multi-tenant LMS.

## Improving the Digital Information Experience for Amazonians

**Problem:** An Amazonian's digital information experience addresses how they discover and interact with digital content supporting the business, their career and individual needs. Today, Amazonians experience multiple starting points for Intranet journeys with limited support for moving directly between 50+ applications. They lack a global search that spans the Amazon Intranet, and the current Inside Search experience returns poor results leading to high abandonment rates. Amazonians must remember where to look for content and lack persistently available help across the resources they consult. Experiences are disconnected and implement different UX and content presentation standards. These limitations are reflected in recent voice of the customer feedback from a June 2022 survey: *"Make a self-service website that includes all of your tools. The biggest part is navigating and finding the proper websites where my resources would be located at"*. Underpinning and exacerbating our ability to resolve these problems, we do not have an ability to consistently and reliably capture, measure, analyze and report on user behavior across Amazonian Intranet discovery journeys.

### Project: Improve Inside Search

**Goal:** *We will deliver a consumer grade Inside Search experience for corporate employees and improve user satisfaction with the quality of results delivered, measured as an improvement in the Search Success Index by TK% from TK in Dec 2022 to TK in Dec 2023 (Search Success Index and TK TBD by Nov 30).*

With 12 BIS: In 2022, we will have deployed a new Kendra-based Global Search service to support the legacy Inside Amazon. In 2023, we will improve the Global Search service with greater user control over search query construction and increased surfacing of potential results directly in results pages. We will enhance the Stencil-based Search Engine Results Page (SERP) with (1) line of business (e.g., Audible, Devices) and micro-region (e.g., California, Washington, New York) filtering of results to improve relevancy and reduce the number of steps customers take when searching, (2) Quick Look for common content types to allow content preview, without redirecting to a separate experience, (3) Quick Answers to surface content in-line in the SERP itself, increasing successful searches with zero clicks, and (4) the ability to save favorite searches to reduce rate of refactored searches. We will measure the effectiveness of Kendra search models and conduct monthly reviews with Kendra to drive improvements.

With 8 Incr. HC: We will build a Search Engine Optimization (SEO) tool to enable content authors and experience builders improve the average position and increase Click Through Rate (CTR) for their content. This tooling will enable content owners to optimize their content for results, prioritized ahead of ongoing relevancy tuning of results.

We will produce a PRFAQ by Mar 31 addressing the scope of the 2023 SEO tool. Additionally, we will produce a PRFAQ by Feb 28 on Quick Links which will enable Experience Builders to request inclusion of deep workflow entry points from within their experiences in addition to the top-level URL for their experience in search results.

**[2023 HC allocation FTE: 10 Tech, 2 non-Tech] – [2023 HC incremental FTE: 8 Tech, 0 non-Tech]**

### Project: Relaunch Inside Amazon as a new Connected Experience

**Goal:** *By Nov 30, we will launch a new Inside Amazon experience as a one stop entry point to all corporate employee intranet experiences, reducing HRBP undifferentiated work in guiding employees by TK% from 74 hours per month in Dec 2022 to TK hours per month by Dec 2023 (TK TBD Sep 30 2022).*

With 18 Tech BIS, 3 Incr Tech HC, and 7 Non-Tech BIS: We will build a new Inside Amazon experience as a responsive web application to provide a one stop portal for Amazonians to get routed to content, and workflows relevant to them. Core to this experience will be a Stencil global toolbar featuring, (1) a scalable global intranet side-navigation menu system, (2) a query entry point to our global search service, (3) a context aware Help leading Centre, (4) a notifications reminder, and (5) User preferences. Users will be able to choose between navigating or searching for content and experiences across the Amazon Intranet. Notifications and tasks will be prominently and consistently displayed as part of the global toolbar, and context-relevant help content will be easily accessed at any time with one click. We will migrate all existing Ivy products and help experiences to the new Inside Amazon product experience. We will integrate Amazon Corporate News and Communications feed in the home page to enable reach to Amazonians at the forefront of the Inside Amazon experience. We will implement configurable locale selection to facilitate HRBPs and Managers accessing information for locales other than their own. We will present a PRFAQ by Sep 30 for a news feed personalization system to increase the relevance of news to individuals and their business context. We will deliver a joint recommendation with AtoZ by Q3 2022 detailing how we plan to further align navigation through Stencil, to maximize UX consistency between Inside Amazon

and AtoZ experiences connected in Inside. We will implement the user interface elements in the mandatory core languages<sup>2</sup>. By Dec 2022, we will present a PR FAQ for the evolution of the Accolades and Gather as community engagement tools integrated with the connected experience.

**Goal:** By Jan 30, we will present a plan for the presentation of existing Inside Amazon content hosted on AEM and SharePoint onto the new Inside Amazon experience.

Today content hosted in AEM is rendered as part of the Adobe Experience Manager. With 1 BIS: We will deliver a PRFAQ and plan describing how existing Inside content hosted on both AEM and SharePoint will be presented on the new Inside Amazon experience.

**[2023 HC allocation FTE: 18 Tech, 7 non-Tech] – [2023 HC incremental FTE: 3 Tech, 0 non-Tech]**

#### **Project: Connecting Amazonians together with Phone Tool**

**Goal:** By Sep 30, we will re-launch Phone Tool on desktop as a fully accessible experience, integrated with the Global Amazon Toolbar to enable a 'one-click' people discovery experience from any page on Inside Amazon.

With 7 BIS: We will re-launch Phone Tool on desktop with the following features, (1) integration with the Global Amazon Toolbar to enable a 'one-click' people discovery experience from any page on Inside Amazon, (2) a UX built with Stencil that is fully accessible per WCAG standards, (3) an end-user configuration tool that replaces legacy grease-monkey scripts with new UX controls, (4) people discovery tools for operational support that enables users to quickly find on-call engineers and open TTs.

**[2023 HC allocation FTE: 7 Tech, 4 non-Tech] – [2023 HC incremental FTE: 0 Tech, 0 non-Tech]**

#### **Enabling Federated Development for Experience Builders**

**Problem:** Today, there are two major frameworks for the development of product experiences in PXT; AtoZ and Ivy. Both utilize Stencil, a UX design system that aligns UX design across product experiences built on Ivy and AtoZ through accessible and responsive components and design patterns. Ivy addresses the need for specialized desktop applications that support complex business workflows that need in-line help and operational support from line businesses. Ivy was adopted by teams developing corporate desktop applications including GTMC and AET IC and Manager workflows. Experience Builders from these organizations need additional investment in the SDK to enable fast iterative development of new experiences with less infrastructure and test setup overhead. They also need to reduce operational overhead for product cycles associated with Ivy tasks and notifications (e.g. supporting the Q1 talent cycle and quarterly promote cycle), and need configurable workflows.

AtoZ enables the development of experiences that span both desktop and mobile for associates and corporate employees. AET have adopted AtoZ to develop workflows relevant to corporate ICs and associates in both desktop and mobile, and workflows relevant to associates only. Experience Builders solving for these use cases need to be able to develop applications across mobile and desktop for associates and corporate employees with as little overhead as possible, ideally following a 'develop once, deploy anywhere' model of mobile responsive application development.

The legacy of disconnected data lakes, reporting solutions and dashboards for analytics across PXT also impacts the productivity of Experience Builders engaged in building solutions for reporting, analytics, and science. The 2021 Amazon Tech Survey revealed that 51% (n=151) of PXT science employees identified problems with finding and accessing data as *'the source of most friction at work'* for them, with 40% of the respondents reporting that it took more than one week to find the data they need to do their work. With PXT DaaS, we have invested in building a central data utility for PXT to enable data producers and consumers to rapidly consume and distribute the data they need, with configurable permissions management to control access to this data in line with Amazon standards for data privacy and security.

#### **Project: Evolve the Ivy SDK to enable federated development on Inside Amazon**

**Goal:** By Jun 30, we will launch the Inside SDK to enable Experience Builders to independently configure and launch products, widgets, tasks and notifications on Inside Amazon.

With 13 BIS and 4 incr. HC: We will launch the Inside SDK, an evolution of the Ivy SDK built in 2022 with added support for the Inside Amazon Information Architecture to enable Experience Builders to independently configure and launch experiences on Inside Amazon. We will further reduce development and operational overhead for Experience Builders by supporting (1) deployment release cycles independently controlled by Experience Builders, (2) a new A/B testing service, integrated with PXF product analytics, and (3) an 'out-of-the-box' regionalized architecture compliant with India's personal data protection regulation and similar data protection laws that restrict the movement of personal data. We will support codeless configuration and launch of Tasks, Notifications and Recommendations on Inside Amazon. This will reduce the time taken to configure and launch from days to < 1 day. We will partner with the A to Z team to deliver a combined Tasks & Notifications presentation experience across the desktop connected experience for corporate employees.

**[2023 HC allocation FTE: 11 Tech, 2 non-Tech] – [2023 HC incremental FTE: 4 Tech, 0 non-Tech]**

<sup>2</sup> As of June 2022 these are: French, Spanish, Chinese (simplified), Slovak, Czech, Romanian, Japanese, German, Italian, Polish.

**Project: Accelerate development of accessible and responsive experiences with Stencil**

**Goal:** By Jun 30 we will upgrade all Stencil web components to be mobile responsive to enable experience builders to design once accessible and responsive applications. We will deliver design patterns to implement the Inside Global Toolbar and Search Engine Results Page (SERP) to enable the relaunch of Inside Amazon as a new connected experience.

With 11 Tech BIS and 5 Non-Tech BIS: By the end of 2022, Stencil will include 53 web components, of which 35 will fully support the development of mobile responsive experiences, and 37 react native components. We will upgrade all web components to be mobile responsive. We will develop new design patterns that bundle Stencil components into reusable kits to solve common use cases in support of our strategy to relaunch Inside Amazon as a new connected experience. This will include Figma components and their implementation for the new Inside Amazon Global Tool Bar, and Search Engine Result Page (SERP). We will continue development of components supporting our customer needs with 100% of new web components “born” mobile responsive. We will deliver code-snippets and guidelines for the implementation for design patterns documented in Figma.

With 3 Incr. HC: We will deliver (1) a regression testing framework that uses pixel comparison to identify UX consistency issues, (2) instrumentation of components, with clickstream data onboarded to PXT DaaS to map customer journeys end to end, and (3) a new UX Research repository that enables designers and developers to get closer to their customers through historical trend analysis and surveys.

**[2023 HC allocation FTE: 11 Tech, 5 non-Tech] – [2023 HC incremental FTE: 3 Tech, 0 non-Tech]**

**Project: Federated data management at scale with PXT DaaS**

**Goal:** By Sep 30, we will establish PXT DaaS as PXT’s central utility for the secure exchange of data, adopted by GTMC, People Engagement, AET, Recruiting Engine, and Line Teams to accelerate science and analytics and enable PXT-wide data governance mechanisms and standards.

With 18 BIS and 5 incr. HC: We will deliver a feature roadmap and adoption program for PXT DaaS that will establish a single, central source of truth for PXT data, solving the data acquisition problem for PXT analytics and software teams that today invest in solutions to ingest data from various data domains into team-owned data repositories. We will solve for permissions and data governance by: (1) measuring and reporting on manual permissions requests and the time it takes to action them in order to establish a baseline measure of the “time to access” problem, (2) scaling an automated row and column level permissions management service built in 2022 for DEI data to all PXT data categories, (3) delivering PXT DaaS integration with DISAPERE automated deletions in order to satisfy GDPR requirements, and (4) implementing a data regionalization solution for India personal data protection requirements. By Nov 30, we will present a PR FAQ for a single data integration API layer for the integration of product experiences built by AET and GTMC in support for the deprecation of existing caching and database layers used today in GTMC (Talent Profile Service, Lift RDS database).

**[2023 HC allocation FTE: 18 Tech, 0 non-Tech] – [2023 HC incremental FTE: 5 Tech, 0 non-Tech]**

**Project: Connected PXF product analytics**

**Goal:** By Mar 30 we will launch PXF product analytics which deliver data and insights to optimize customer experiences across Inside Amazon SDK-based experiences including Search.

With 7 BIS, and 4 Incr. HC: We will implement an Inside Amazon Analytics Framework that captures data on feature usage, performance & latency for all Inside Amazon SDK-based experiences including Search, as well as supporting A/B testing and the gradual dial-up of those experiences. By Oct 2022, we will agree a common mechanism for identifying the user associated with particular traffic events from both Inside Amazon and AtoZ (e.g. person ID, possibly hash-anonymized) that will make it possible in future to analyse intranet journeys that span both frameworks although the work to implement these Intranet-spanning user journey analytics will not be undertaken in 2023.

With 1 BIS, and 4 Incr. HC: We will deliver and maintain PXF Analytics and Dashboarding for (1) the User Experiences built and maintained by PXF in 2023<sup>3</sup>, and (2) the services provided as part of the Inside Amazon SDK. We will make all analytics data available on PXT DaaS, enabling experience builder teams who leverage the Inside Amazon SDK (e.g. GTMC) to analyse and build their own dashboards. Reporting will cover, (1) Customer segment data (eligibility, multi-segment cuts, mobile users, referral and destination data), (2) Customer behaviour data (customer journeys, clickthrough, funnels, time spent), and (3) Producer/Developer experience data (adoption, functionality usage, platform quality metrics).

**[2023 HC allocation FTE: 8 Tech, 0 non-Tech] – [2023 HC incremental FTE: 7 Tech, 1 non-Tech]**

**Project: PXT Technical Operations**

**Goal:** Scale PXT Technical Operations review with insights informed by data.

<sup>3</sup> Search, Inside Amazon, Phone Tool, Help Center

With 3 Incr. HC: We will develop operational excellence dashboards and tools to measure availability and compliance to best practices in software development and deployment across PXT products and services. We will identify systemic root causes of failure associated with features, availability and privacy and drive improvement programs. We will run the bi-weekly technical operations review and serve as a bar raiser group for software development and deployment best practices across PXT.

**[2023 HC allocation FTE: 0 Tech, 0 non-Tech] – [2023 HC incremental FTE: 3 Tech, 0 non-Tech]**

### **Enabling Producers and Builders to deliver great Digital Experiences**

**Problem:** In 2022, PXF took ownership of the PXT CMS, a service based on Adobe Experience Manager (AEM). We identified foundational gaps related to information personalization, authoring and governance, content quality assurance, and lack of a suitable underlying store to make content discovery and reuse effective. As we continue to learn and understand the challenges faced by our content producer and experience builder customers, we realize framing these gaps solely as CMS issues is at the wrong altitude. We need to reimagine the CMS as being a core service within a larger eco-system of digital experience related cloud native services that includes personalization, social media (likes, comments, sharing), discoverability, analytics, asset management and taxonomy, supported by PXT wide content quality and governance programs. Positioning the solution as a toolbox of related cloud native services interconnected by well-defined APIs will provide the flexibility that is required to enable us to raise the bar for our customers. In 2023 we need to take the initial steps in this evolution to a Digital Experience service by creating an extensible architecture with the PXF CMS at its core with microservices supporting automated translations, bulk updates, reviews and taxonomy management workflows and analytics. Adding to the Digital Experience gaps, Amazon lacks a single HR document management service capable of supporting all customer segments (associates, corporate employees, HRBPs) for the generation, administration and signing of official documents. Despite annual licensing costs of \$6MM for OnBase and \$1.5MM in professional services, the solution does not meet the needs of Experience Builders and lacks Amazon specific document generation leading to delays of +24 hours on document delivery lead times. In the June 2022 survey, HR roles reported spending over 60 hours a year on unnecessarily manual document generation work which could be automated.

#### **Project: Evolving the PXT CMS to a PXT Digital Experience Framework**

**Goal:** *By Jan 30, we will present a plan for relaunching the PXT CMS as a self-hosted headless only service to drive improvements in operational agility through reductions in deployment times from weeks (including scheduling coordination) to hours.*

With 2 BIS: In 2022, we supported the business with a create once, publish everywhere strategy by enabling headless mode on the existing PXT CMS running on a 3P managed AEM instance. Our first headless customer will be the Benefits MLP launch in Sept 2022, with the Disability & Leave MLP launch fast following in Q4. By Oct 30 2022, we will complete an evaluation of headless CMS solutions that can be self-hosted and present a recommendation to the PXF LT. By Jan 30, we will present a plan for relaunching the PXT CMS as a self-hosted headless service based on the recommendation. This plan will include support for migration tooling to reduce as far as practical the level of manual effort required to move content between PXF-managed CMS solutions.

**Goal:** *By Sep 30, we will launch a content quality closed loop mechanism in the PXT Digital Experience Framework to measure and improve grammar, voice and taxonomy compliance.*

With 8 BIS: We will provide support to experience builders and content authors for the AEM CMS service and existing workflows (both headless and full stack). We will add content quality measurement to baseline content quality and provide a feedback loop to content producers. We will add taxonomy management to support content producers with taxonomy lifecycle management and compliance measurement.

**Goal:** *By Oct 31 2023, we will launch an extensible PXT Digital Experience Framework MLP.*

With 2 BIS, and 16 Incr. HC: We will deliver an extensible Digital Experience Framework architecture with the PXT CMS. In 2023 we will implement the following features, (1) a content feedback service supporting comments feeds, likes, content sharing and content recommendations, (2) a pilot integration of the PTX CMS with Amazon Wiki to provide non-technical teams with a channel for their headless content hosted on the PXT CMS, (4) a CMS-agnostic Translation Management Service, and (5) a CMS agnostic bulk updates and content review workflow service to reduce the amount of time content producers spend on manual tasks.

**[2023 HC allocation FTE: 12 Tech, 0 non-Tech] – [2023 HC incremental FTE: 16 Tech, 0 non-Tech]**

#### **Project: PXT Content Model, Taxonomy, Quality & Governance**

**Dependency:** To enable scalable delivery of personalized content that is discoverable through global search and navigation and is reusable across PXT experiences, and to improve efficiencies within experience-building teams, we need a PXT Content Governance program by Jan 1 to, (1) create and govern a core PXT content model, content taxonomy and content fragment architecture that is (mostly) team agnostic, focused on the topics and information employees need, and (2) drive content quality (authoritative, accurate, accessible) across the end-to-end content lifecycle and report on key content quality KPIs across at least 75% of PXT experiences by Dec 30. AET HRGC have ownership for each of these areas, supported as required by existing PXF CMS HC enabling technical features in the CMS. PXF TPM/PMT HC will participate in governance activities.

#### **Project: PXF Doc Services – Automated document management**

**Goal:** By Sep 30, we will deliver a multi-tenant digital signature service addressing compliance support and the ability to switch e-signature provider.

With 12 BIS: We will deliver an automated digital signature service that complies with regulations in EMEA, China and India. We will implement Qualified Electronic Signature with support for signing multiple documents at once (QES bulk sign). We will implement support for the India certifying authority (*eMudhra*) and China electronic signature (*eSign*).

With 6 Incr. HC: We will deliver a multi-tenant system to enable low operational cost switch of e-signature provider to strengthen our negotiating position with Adobe (\$50c per signature, \$1.2MM per year). We will support Mergers & Acquisitions (M&A) to address country specific gaps and generate customized document bundle packages for candidates.

**Goal:** By Jul 31, we will deliver a templated document automation service supporting API integration with PXT product teams.

With 7 BIS: We will develop a templated document generation service that will enable business teams to define templates for document needs without the need for a technical or support team to engage. We will deliver an API for document management integration into PXT products. We will deprecate the 3P integration product (MuleSoft) saving \$1MM per year in licensing fees.

**Goal:** By Jun 30, we will deliver an accessible web and mobile document generation experience, reducing the mean time to resolution of document requests from 4 days to 4 hours.

With 6 BIS: We will build an accessible self-service document generation capability that will eliminate the need for employees to raise tickets for document requests and wait for a mean time of 24 hours to get their documents. With 5 Incr. HC: We will evolve the pre-boarding document experience on the web and mobile addressing the candidate and employee pain points.

**[2023 HC allocation FTE: 20 Tech, 5 non-Tech] – [2023 HC incremental FTE: 11 Tech, 0 non-Tech]**

#### **Project: PXF Doc Services – Enterprise content management service**

**Goal:** By Jan 15, we will deliver a crisp working backwards document for the deprecation of OnBase to be replaced with Amazon's Enterprise content management service, removing \$6MM per year licensing cost, high KTLO costs (15 BIS), and removing business transaction impediments associated with document generation and signature. This document will be reviewed as part of an OP2 incremental investment.

**[2023 HC allocation FTE: 0 Tech, 14 non-Tech] – [2023 HC incremental FTE: 7 Tech, 0 non-Tech]**

#### **Simplifying Learn for Administrators and Learners with a multi-tenant LMS**

**Problem:** The PXF Learn team owns the operations of KNET, a Learn Management System (LMS) used for the delivery of training for corporate employees and associates<sup>4</sup>. KNET is a Tier 1 consumer peak operation tool, delivering critical 'Day 1' training to over 1MM associates (L1-4,99). In Q4 2021 peak, 423K associates logged in to KNET taking 260 vNHO courses to fulfil consumer website orders. We license KNET from Cornerstone for \$10MM yearly, plus \$5MM in support operations.

KNET does not scale linearly to users and in 2021 we deployed a second KNET instance to extend support for longons beyond 140k per day. KNET as a third party systems does not allow Amazon to conduct availability and resilience monitoring and does not enable direct integration with Amazon HR systems, hence providing a limited assignment and learner curriculum management. At least 11 other LMS are in use across Amazon<sup>5</sup>, with such fragmentation of tools and resources, learners lack a single place to plan and execute on their learning. HRBPs and managers do not have a single place to manage curriculums and learn strategies. Learn administrators have to choose where to host their content and do not have the tools to baseline their content and manage content quality.

#### **Project: Launch a Multi-Tenant Learning Management System (LMS) for Amazon**

**Goal:** We will launch a Multi-Tenant Learn Management System, integrating existing systems through a single portal for learners and administrators to manage learn plans supporting the business at scale.

We will build a multi-tenant LMS that will provide a single portal for learners and administrators in managing learning strategies for teams and individuals, searching for learn content and managing curriculum progress. The solution will implement a federated catalog system powered by Inside Search, a central learn assignment engine, a learner and administrator experience as a single entry point for all learn content across Amazon. In 2023, we will build a federated learn catalog that will abstract content from all internal LMS and integrated with inside search to provide a unified learn content discovery experience for Amazonians. We will build a unified reporting and training transcript capability for learn administrators, managers, HRBP and other 1P applications to track training completion progress across multiple LMS.

**[2023 HC allocation FTE: 38 Tech, 12 non-Tech] – [2023 HC incremental FTE: 18 Tech, 3 non-Tech]**

<sup>4</sup> 885K+ courses administered by 41K+ Learn administrators and supporting over 2.71MM learner

<sup>5</sup> KNET hosts over 885K+ online courses and in-person led trainings, administered by 41K+ Learn administrators and supporting over 2.71MM learner

**FAQs [required FAQs below – additional FAQs can/should be added as needed for your specific business]****1. What are your team's dogs are not barking?**

Business Operations: Business operations team need a place to communicate and drive outcomes. We need a deep dive on News and The Cube and capture needs from business operations to establish how to converge these communication needs onto Inside Amazon and the proposed PE tasks and notifications service.

Content Quality: While online training has gone up 4x since pandemic, there is no program in place to baseline and drive content quality to a specific benchmark.

Tasks and Notifications in Inside: With the relaunch of Inside Amazon we are bringing tasks and notifications to the forefront of the experience, raising visibility and simplifying actionability. We must define governance mechanisms for 2023 in order to ensure prioritization of these notifications support the right business priorities (e.g. Q1 cycle GTM tasks and notifications).

Accolades: We need to decide the long-term product strategy for Accolades, its relationship to Phone Tool and Gather, and how these products should evolve in the context of People Engagement.

Search on Mobile: Integrating global search in AtoZ presents two challenges which we will address in 2023: (1) AtoZ users may not be federated logged-in users presenting both access and authorization challenges, and (2) some target results from the global search index may not be supported/available/appropriate for AtoZ mobile users.

**2. What are the most controversial or hotly debated topics in your organization?**

Where should I develop my experience; AtoZ ADP or the new Inside SDK?: All experiences that span corporate and associate employee populations should be delivered via the AtoZ ADP as responsive applications that follow the principle of 'develop once, deploy anywhere'. Specialized desktop applications for the corporate employee population that support complex business workflows that need in-line help and operational support from line businesses should be delivered via the Inside SDK. All experiences developed on the Inside SDK will also be responsive, but partner teams can decide if they want to expose experiences on mobile or not on AEA or as AtoZ apps working with the ADP. To simplify the end-to-end onboarding experience for partner teams, we will launch a single People Engagement intake mechanism that will consult with partner teams to advise on the most appropriate development path for their experience. By Q3 2022, we will present a paper describing alignment of UX design, that will include Web & Mobile IAs and the connection of tasks and notifications. By Q4 (DFAD) we will present a plan for service layer alignment. Both of these will pave a path forward for the convergence of AtoZ ADP and Inside SDK teams to simplify design and development for partner teams working with both frameworks.

What happens to Ivy's "You" & "Your team" pages in the new Inside Amazon connected experience: These pages will exist as navigation points from the global navigation as "You" and "Your team" for PXT partners to continue to evolve and bring together the relevant summary of information.

Where should MyHR fit into the new connected Inside Amazon vision?: With the relaunch of the PXT CMS as a headless CMS service, we are delivering a create-once, publish-everywhere capability for content authors. And with the relaunch of Inside Amazon, employees will benefit from an improved Intranet navigation and global search service that makes it easier for them to find that content, and the experiences built on top of it. Nonetheless, there will still be times when customers do not find what they want through self-serve; we may have the content they need, but they are searching or navigating for it in a way we hadn't predicted, or, we may not have the content. In either case, we see a role for a MyHR service through which they can escalate their query. By applying Natural Language Processing (NLP) to extract intent it may prove possible for MyHR to help the customer to refactor their query and redirect them to the appropriate destination on the Intranet through which they can successfully self-serve, or as a last resort, MyHR can provide them with context-appropriate options to escalate to human-powered support channels. In either case do we foresee a situation in which new self-serve support content should be authored 'in' MyHR as this would take us away from our trajectory towards a COPE strategy for content across PXT.

**3. What are your disruptive ideas?**

Digital Information Discoverability: By connecting the employee experience through a common navigation and search experience, and through a single point of ingress with Inside Amazon, we are seeking UX pattern alignment with AtoZ for web corporate experiences. This alignment introduces the Amazon Global Navigation as a common UX pattern implemented in Stencil. Short term we are establishing this alignment though a common search feature only as a way to connect all experiences through search led user engagement.

Cross Journey Analytics: Alignment of experience instrumentation around a common user identifier to enable analytics of full end to end user journeys independent of underlying tech stack.

PXT Wide Content Strategy: Migration to headless content storage and a consistent PXT-wide taxonomy with dedicated governance, to progress towards single source of truth for localized employee information.

Enterprise Document Management: Delivering an enterprise grade document management service for Amazonians that provides one-click delivery of documents in less than 1 minute.

#### 4. Are there areas where you do not have a STL (Single Threader Leader)?

Accolades and Gather are both in KTLO. We will present a PR FAQ in Dec 2022 for the evolution of Accolades and Gather as community engagement tools integrated with the new Inside Amazon connected experience.

#### 5. What are your team's top "paper cuts"? What are your plans to address?

Lack of content breadth in search results on Inside Amazon: – Between Apr 2021 and Mar 2022, corporate employees conducted 12M searches on Inside Amazon with 36% (4.32M) of those relating to tools or applications hosted outside of Inside Amazon. This poor level data source support in the Inside Search index has led to the creation of a manually driven pinned results program to provide pinned URLs at the top of the search results to help customers find the information they are looking for. We will address this problem through the expansion of data sources that we support on Inside Search through 2023.

#### 6. What are the core challenges and barriers your teams face? Consider barriers present today in your team as well as external to your team. What recommendations do you have, or steps are you taking to help address these challenges?

3P Dependencies: Dependencies on 3P providers for content management and document management services impact on operational agility and the quality of service we can provide our customers. In 2023 we will launch self-hosted content management and document management services to provide a better service to our customers.

Recruitment: In 2022, we negotiated dedicated recruitment support in Europe to drive improvements in our hiring funnel across EDI, DUB and BER locations. The team generated 39 phone screens and 4 onsite within 4 weeks of sourcing. We need to replicate this model in North America to ensure we meet our 2022 and 2023 hiring needs. In addition, we need to ensure we hire domain experts across headless content management, search optimization and data science to fill gaps in our current level of expertise in these fields. We will review our site strategy during the month of July to plan for an aggressive recruiting campaign supporting our business needs.

#### 7. Which areas of your organization could be consolidated with another to drive further efficiency and effective execution in the organization?

Internal Search & Inside Search: Amazon's Internal Search service ([is.amazon.com](https://is.amazon.com)) is owned by the AWS Enterprise Knowledge Growth (EKG) team. While EKG share a similar strategic vision to PXF Inside Search for enabling Amazonians to find information across the Intranet, their primary customer segment is Amazon's developer community, contrasted with the broader Amazonian population served by Inside Search. On Jun 17, we presented a jointly produced plan to PE and EKG LTs for a common Internal Search back end to power results for Inside Amazon customers. This dependency will drive closer collaboration between both organizations and require cross team governance mechanisms to be put in place.

HRGC Search Analytics & PXF Analytics: AET HRGC team have a requirement to surface the operational metrics needed to run content creation and localization programs effectively. PXF have a requirement to surface the operational metrics needed to develop and optimize the products through which that content is discovered and delivered. Some of these analytics activities are clearly separate (e.g. reporting on % of articles localized in the last month for AET HRGC vs % of users clicking on particular UI elements in a PXF product for PXF) however others such as search optimization through the authoring of additional recommended results are a combination of product and content and could potentially be handled by a consolidated team.

#### 8. What were your top misses and learnings? What are you most disappointed about in your area (dirty laundry)?

In Jan 2022, we prioritized a time-boxed effort to improve the Inside Amazon search experience by assembling a tiger team of SDEs across People Engagement to implement missing search features considered to be tactical 'quick wins'. Prioritizing this speculative feature development ahead of addressing underlying architectural and operational issues with the legacy Inside stack, combined with gaps discovered in search data instrumentation, resulted in slow pace of development, failed feature launches, a COE and eventual abandonment of the work. The learning from this experience has been to ensure that our development teams have the tools they need to iterate at pace, use standard Amazon tooling to manage deploys and rollbacks and always prioritize work to ensure that the data on which we assess the impact of our changes is reliable.

#### 9. What were your positive surprises over the last year? How are you doubling down on them, and what are the specific actions and programs that evolved from these positive surprises?

Scaling Ivy Information Architecture (IA) evolves into a Scalable Inside Amazon IA: The research and UX work for scaling Ivy IA delivered measurable improvement over the prior navigation. This work was originally scoped for just Ivy. However, we see an opportunity to double down on this direction with the integration of Ivy and Inside Amazon. We will now increase the scope of this program to include Inside and work with A to Z, GTMC and other PXT partners to ensure the web navigation meet our customer's needs.

#### 10. What criteria is used for promoting a search term as a Recommended ("Pinned") result?

Recommended Search (also known as Pinned results) is a content channel available on the first Search Results page to promote select resources for target search terms. As of June 2022, we support 1,215 pinned search terms. We review the list of search terms bi-weekly to identify candidates that should be added as a recommended result based on the following criteria: (1) Top



100 most-search terms; (2) Top abandoned search terms (by ABR > 40% and by abandoned search count); (3) Top search terms with high click-through rate but low % of clicks to Top 2 results (i.e. search results are available but too low in the ranking); (4) Top search terms with low click-through rate and low % of clicks to Top 2 results (i.e. search results are not easily accessible or are not available); (5) Commonly searched for tools that are hosted outside of Inside Amazon; (6) Synonyms of top search terms based on Search Dashboard or as reported by users through Search Feedback tool; (7) Top search terms from Internal Search tool; (8) New building codes; (9) New country names for country-specific employee resource pages; (10) New affinity groups; (11) Strategic search terms to support seasonal events, leadership announcements and new program launches; (12) Reported defects from users or based on data when organic search does not exist.

#### 11. What are our top priorities for Ivy Help Centre in 2023?

Our primary focus for 2023 is to solve for the biggest employee pain-point, information discoverability. In order to reduce friction and provide employees with more easily discoverable help, we will deliver a new Help Centre IA and navigation that is aligned with the new Inside Amazon connected experience. This will include a revamped 'Contact Us' flow with support for automated routing and an integration with MyHR for live help. Further, we will provide content producers the ability to create differentiated and personalized Help experiences to improve relevancy. These changes will enable employees to spend less time in product and more time innovating on behalf of their customers. Another major theme we will address is content management and configurability for content producers. In 2023 we will deliver content-level ownership and permissions, closed loop feedback from the in-product feedback feature, predictive insights to remove the guesswork from content curation, and self-service updates to the existing Events Timeline component.

#### 12. What is the relationship between Ivy Help Center and Inside Amazon Employment content on the new Inside?

Inside Amazon and Ivy support two different patterns for connecting employees with HR policy content. On Inside Amazon, HR policies are presented as individual web pages under the Employment tab. In Ivy, relevant HR policies are presented in the Ivy Help Center, generally with a short form description and link out to the full HR policy document on Inside Amazon. As we leverage Ivy's Help Center service in the new Inside Amazon connected experience we will use UX research to understand how our customers expect to discover and engage with HR policy content on Inside Amazon and align with HR journey teams and policy owners to build plans deliver the best experience for our customers.

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## Appendix A – Resourcing By Project

	BIS*	TBH 2022	Incr. HC 2023	Total
<b>Management Overhead</b>	<b>9</b>	<b>0</b>	<b>2</b>	<b>11</b>
<b>Improving the Digital Information Experience for Amazonians</b>	<b>38</b>	<b>7</b>	<b>11</b>	<b>56</b>
<i>Relaunch Inside Amazon as a new Connected Experience</i>	18	4	3	25
<i>Improve Inside Search</i>	9	3	8	20
<i>Connecting Amazonians together with Phone Tool</i>	11	0	0	11
<b>Enabling Federated Development For Experience Builders</b>	<b>45</b>	<b>10</b>	<b>24</b>	<b>79</b>
<i>Evolve the Ivy SDK to enable federated development on Inside Amazon</i>	10	3	4	17
<i>Accelerate development of accessible and responsive experiences with Stencil</i>	15	1	4	20
<i>Federated data management at scale with PXT DaaS</i>	15	3	5	23
<i>Connected PXF product analytics</i>	5	3	8	16
<i>PXT Technical Operations</i>	0	0	3	3
<b>Enabling Producers and Builders to deliver great Digital Experiences</b>	<b>45</b>	<b>6</b>	<b>35</b>	<b>86</b>
<i>Evolving the PXT CMS to a PXT Digital Experience Service</i>	9	3	16	28
<i>PXT Content Model, Taxonomy, Quality &amp; Governance</i>	0	0	0	0
<i>Automated document management</i>	36	3	11	50
<i>Enterprise content management service</i>	0	0	8	8
<b>Simplifying Learn for Administrators and Learners with a multi-tenant LMS</b>	<b>41</b>	<b>6</b>	<b>21</b>	<b>68</b>
<i>Multi-Tenant LMS</i>	41	6	21	68
<i>Notes: * includes pending starts</i>	<b>178</b>	<b>29</b>	<b>93</b>	<b>300</b>
<b>Total 2022 Recruitment Plan</b>	<b>207</b>			
<b>Attrition Assumption</b>	<b>5.5%</b>			
<b>Total 2022 BIS Plan</b>	<b>196</b>			
<b>Total 2023 Recruitment Plan</b>	<b>300</b>			
<b>Attrition Assumption</b>	<b>5%</b>			
<b>Total 2023 BIS Plan</b>	<b>285</b>			

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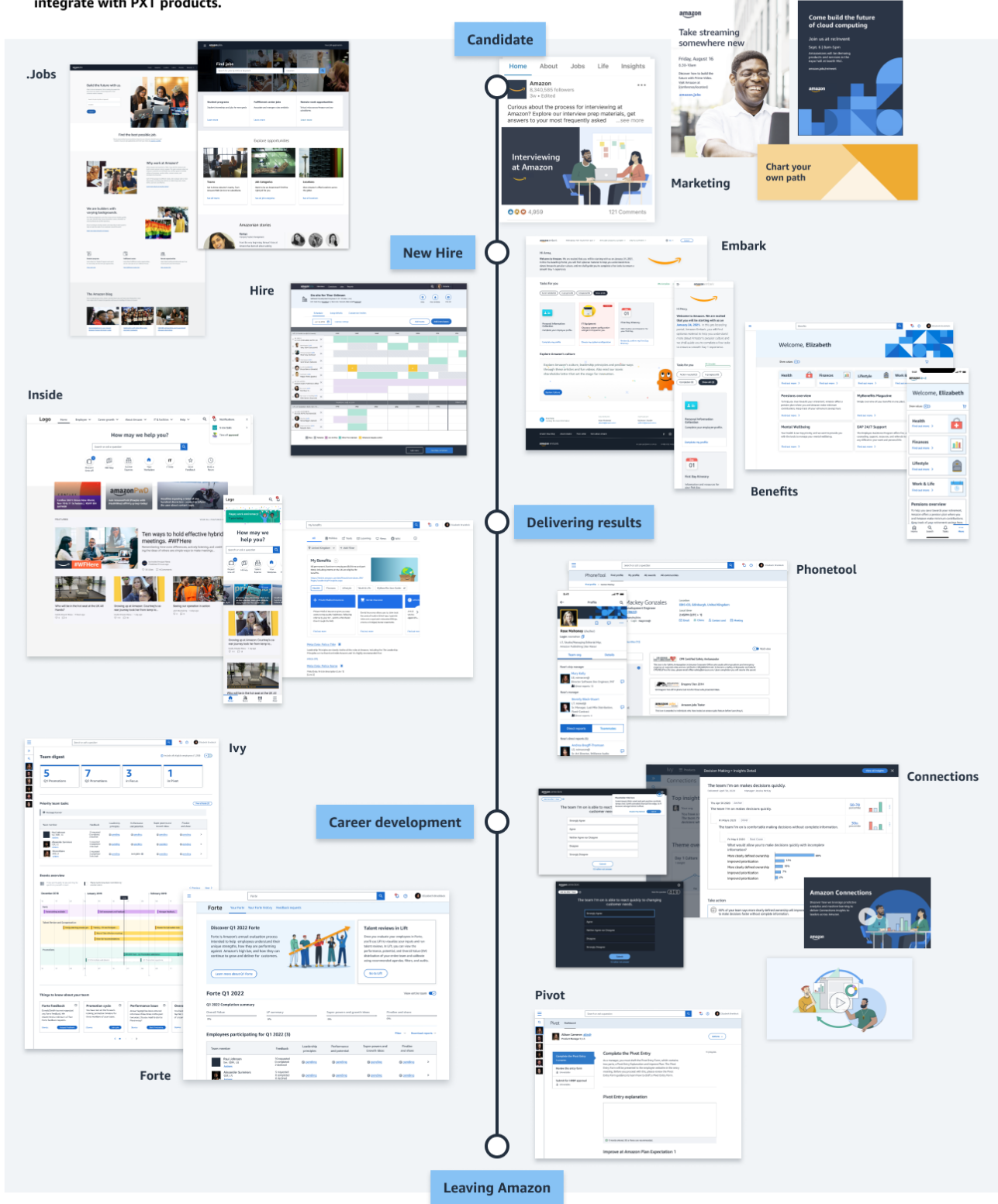
447

448

## Appendix B – PXF-Stencil across the Amazonian Journey

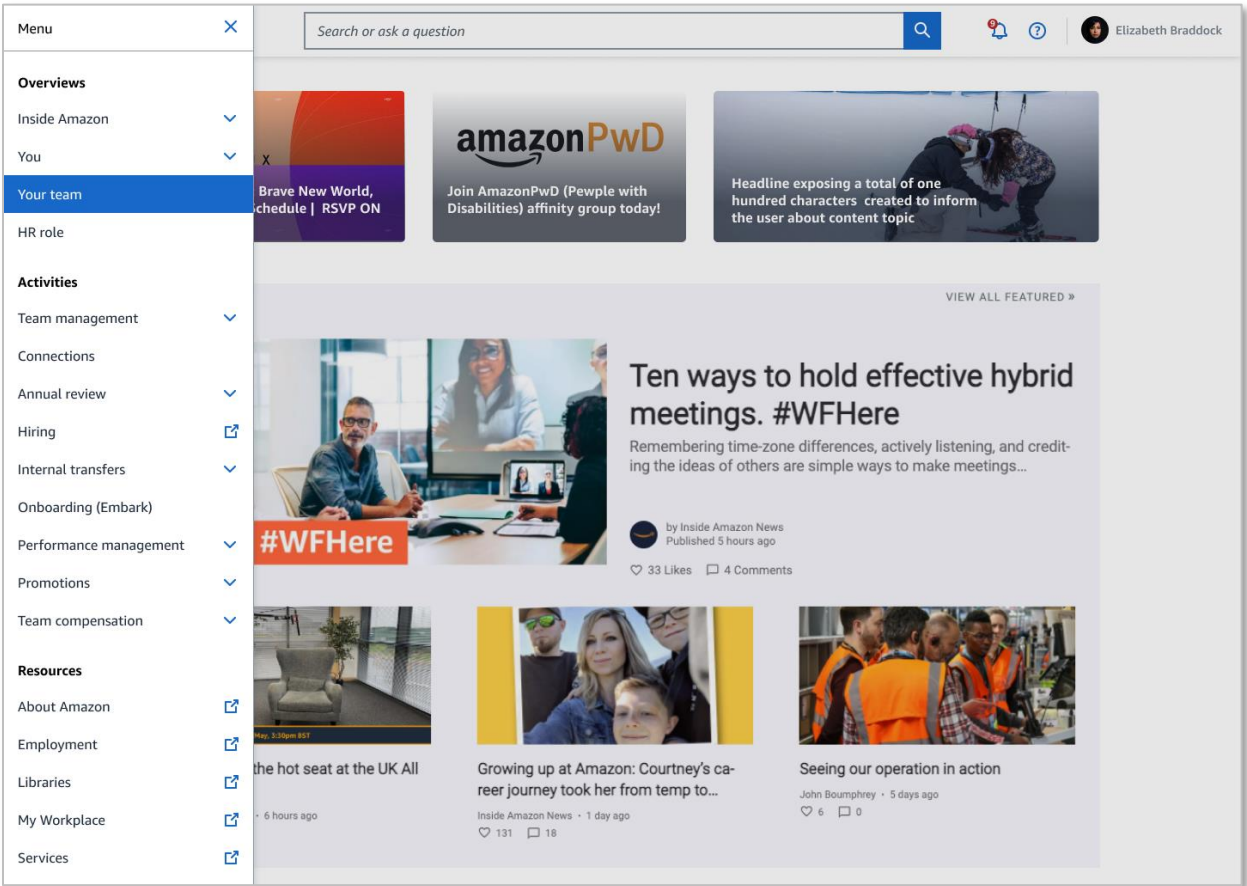
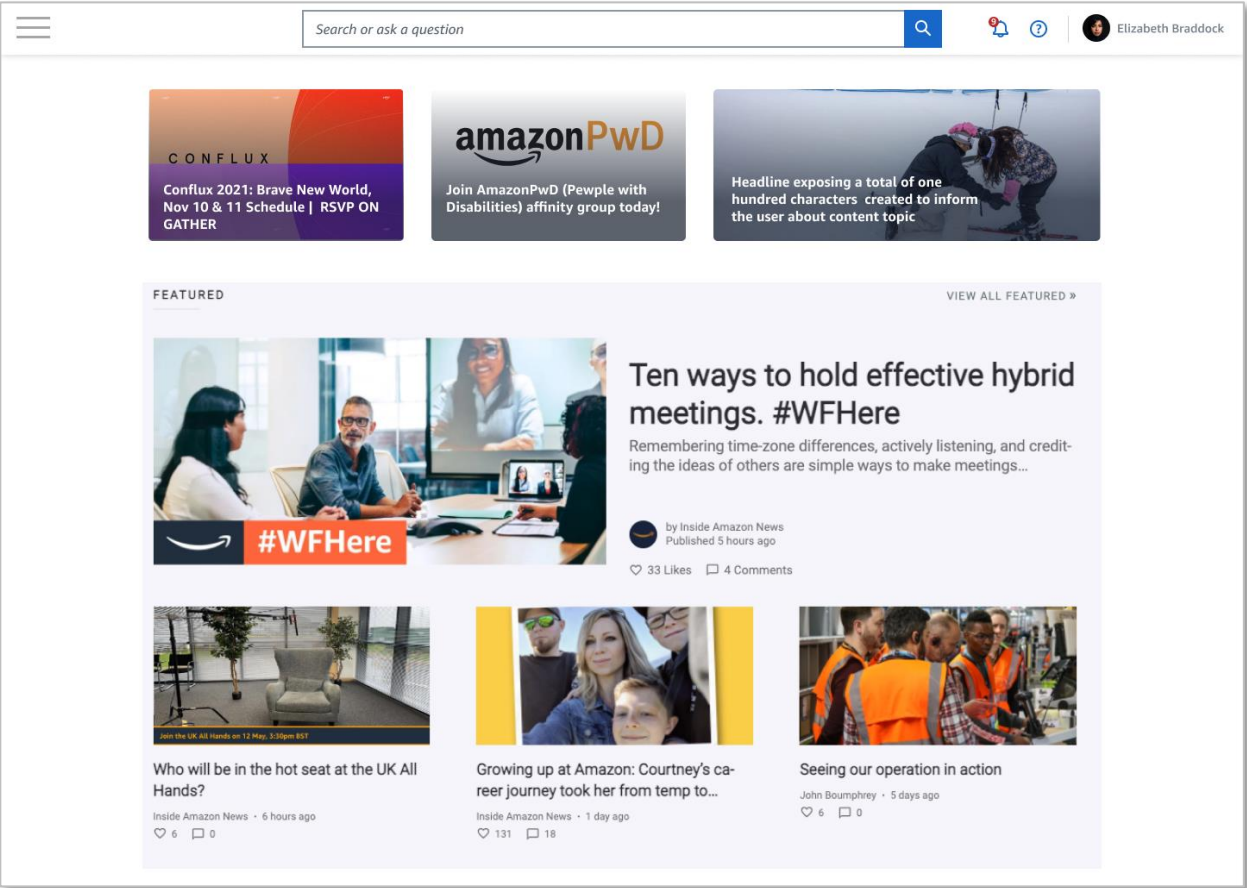
## PXF Across the Amazonian Journey

Products that follow Stencil (foundational design system) and integrate with PXT products.



Appendix D – Connected Experience Mocks

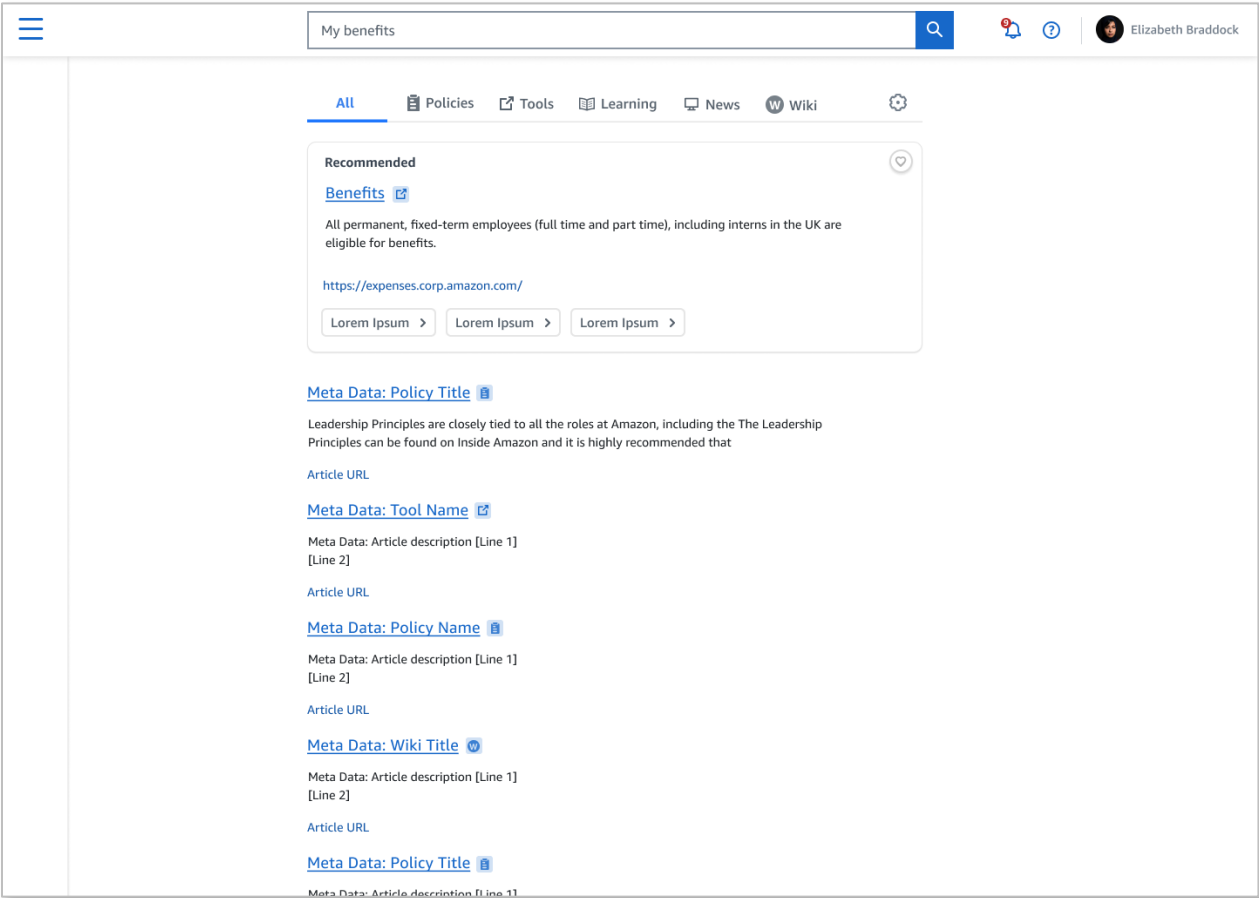
Global Navigation - Integrated Navigation (illustration only)





459

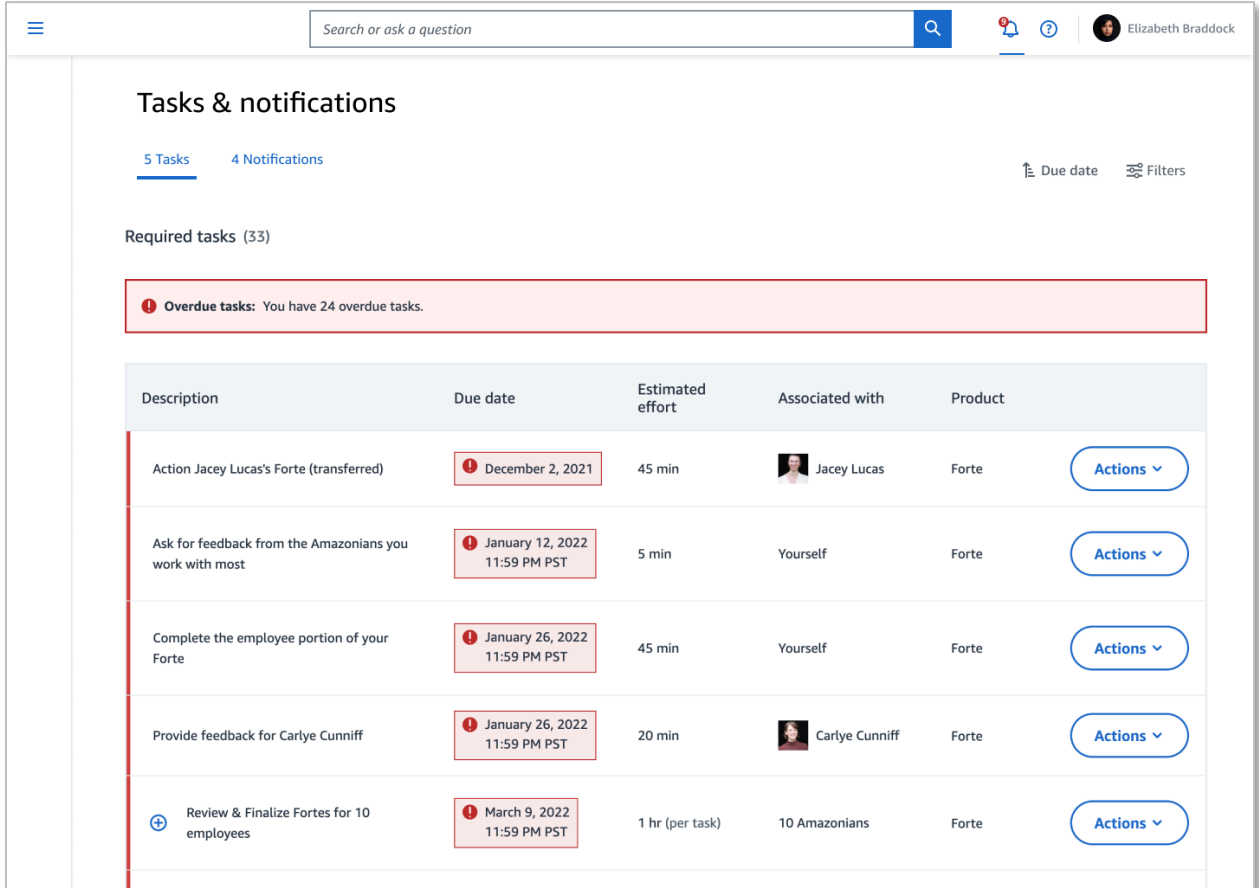
Global Navigation - Search (illustration only)



460

461

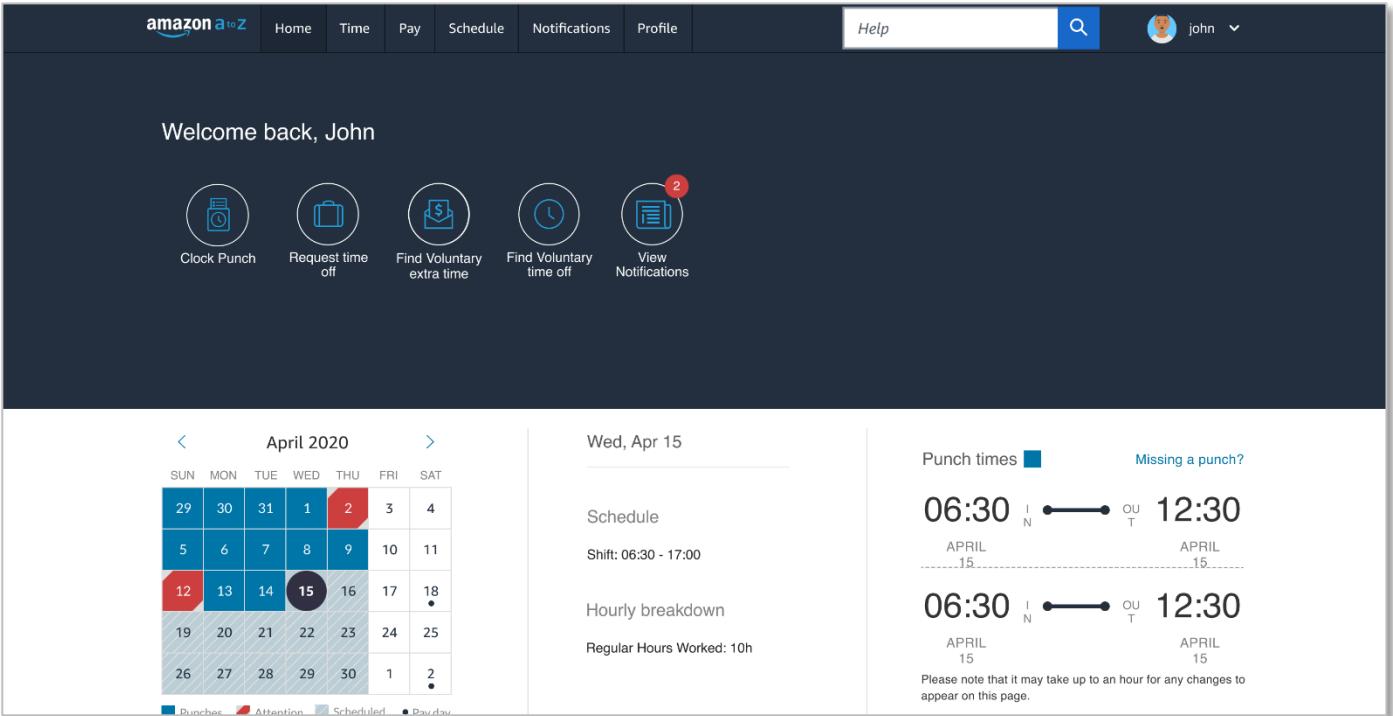
Global Navigation - Notifications (illustration only)



462

463

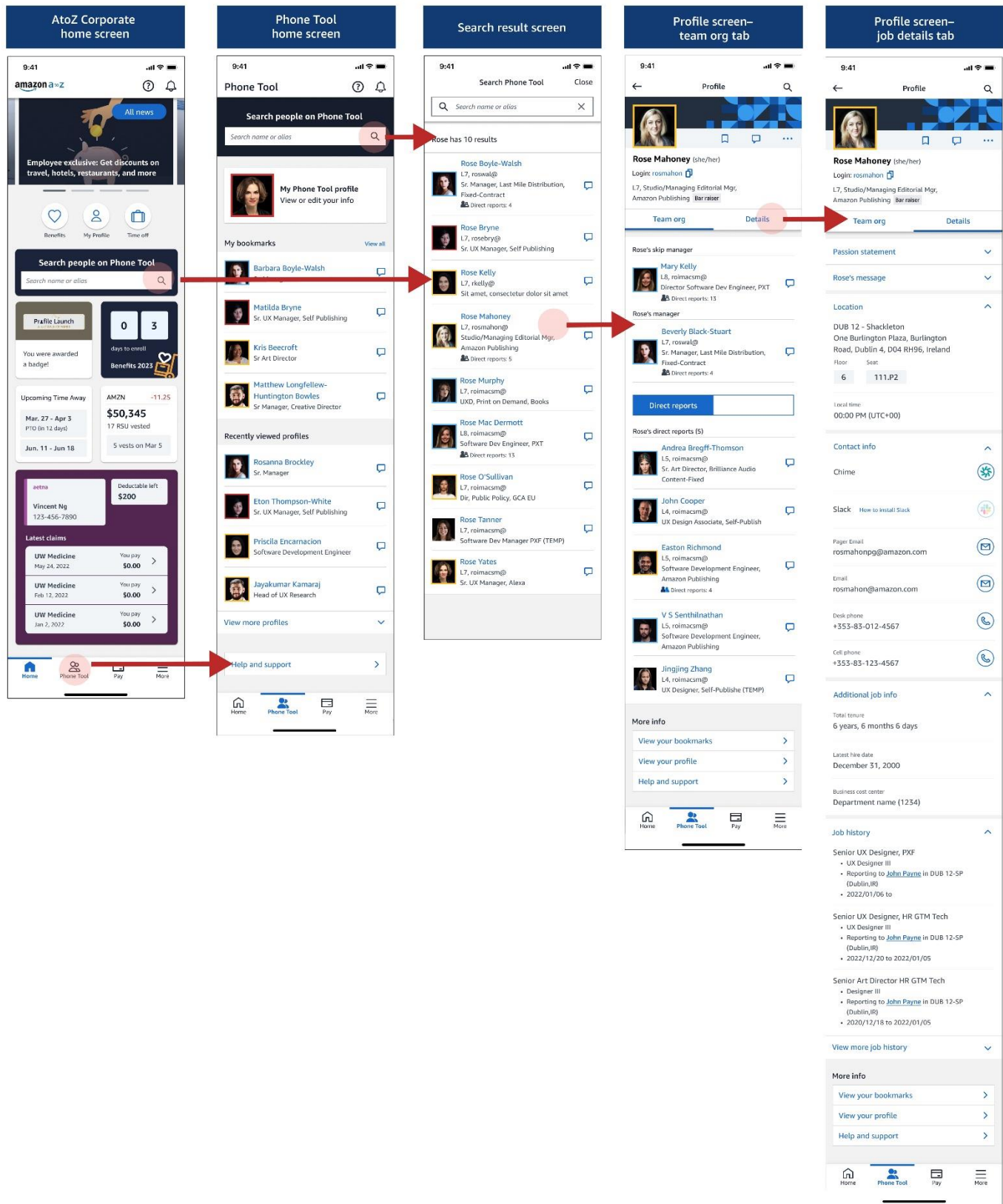
AtoZ using Stencil search



464

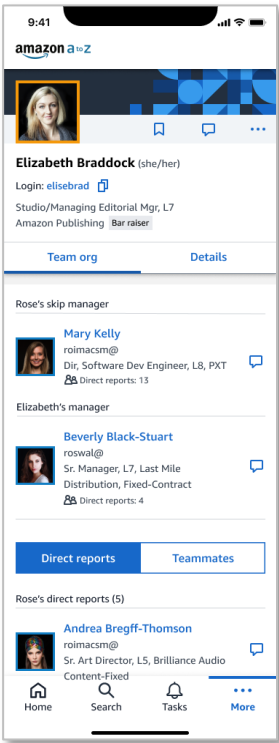
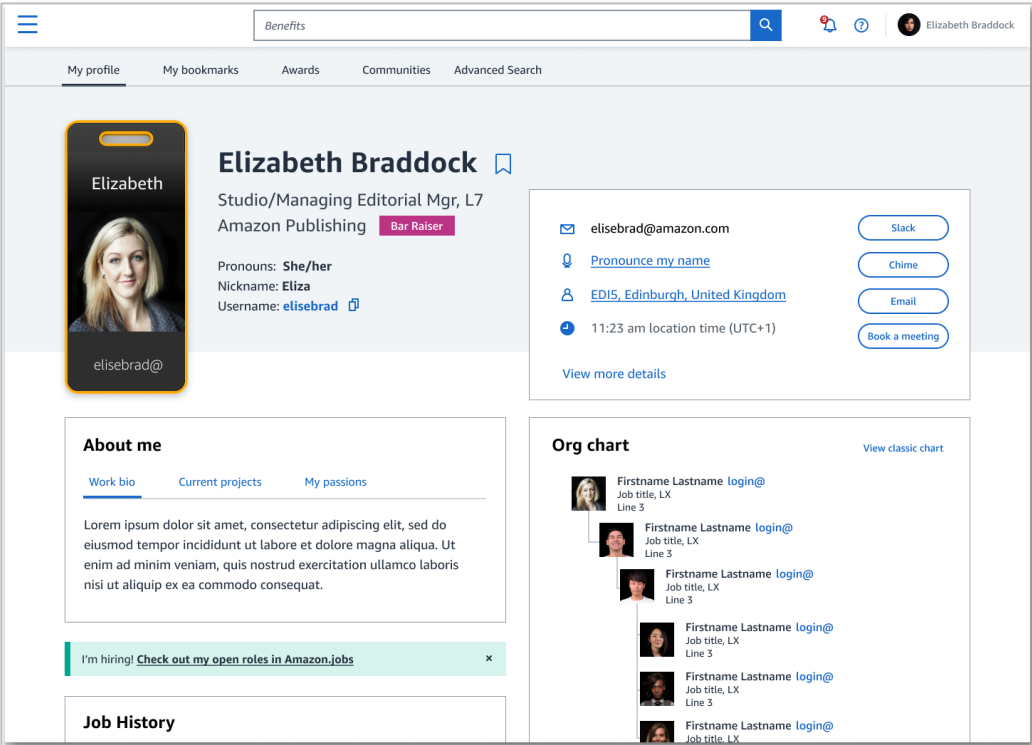
465



**Phone Tool - Mobile (in progress)**



Phone Tool - Desktop Wireframe (illustration only)



**Appendix C – PXF Four Blocker****PXT Initiative Classification**

<p><b>Must Win and Worried</b></p> <p>Improve Inside Search</p> <p>Federated data management at scale with PXT DaaS</p> <p>Evolving the PXT CMS to a PXT Digital Experience Service</p> <p>PXT Content Model, Taxonomy, Quality &amp; Governance</p> <p>Amazon Document Management System</p> <p>Multi-Tenant Learn Management System</p>	<p><b>Big and Optimistic</b></p> <p>Re-launch Inside Amazon as a new Connected Experience</p> <p>Evolve the Ivy SDK to enable federated development on Inside Amazon</p> <p>Hands Off The Wheel Document Generation</p>
<p><b>Interesting Seeds</b></p> <p>Connecting Amazonians together with Phone Tool</p> <p>Enable “build once deploy everywhere” with Stencil</p> <p>Connected PXF product analytics</p> <p>PXT Technical Operations</p>	<p><b>Lower Value/Pessimistic</b></p> <p>Accolades</p> <p>Gather</p>

**Appendix D – PXF Customer Segments**

Corporate Employees include candidates, individual contributors (ICs) and managers. These customers tell us they still don’t know where to go to find information or complete actions across PXT products. They need a smart one stop experience that leads them to the right resources and enables effective completion of tasks through automated workflows. They want to easily discover and engage with training content, to continuously learn in support of their career development.

Associates consume experiences critical to their on-boarding and day to day work activities and include candidates and active associates. They want flexibility as to which device they use to complete these activities, outside of the corporate network. Associates want to be part of Amazon communities and connect with peers and colleagues. They want an effective learning experience that enables them to stay compliant and be able to avail of training opportunities that support their development (e.g. FC picker to packer).

Experience Builders (including designers, SDEs, BIEs, and data engineers) build the corporate CX and infrastructure. Experience builders are exposed to multiple development frameworks, including Ivy, AtoZ, and MyDocs and lack ways to simplify and reduce development efforts across these frameworks, addressing Web and Mobile experiences. They need frameworks that reduce development overhead and implement default constructs and configurations that enable solutions that raise the bar in security, privacy, discoverability, and availability.

Content Producers create the content that Amazonians rely on to understand our policies, mechanisms, news, training material and other important aspects of our peculiar way of working. Producers (content authors, localization teams, and Employee Services teams) are frustrated when authoring, collaborating, updating, or managing the lifecycle of content if they have to undertake manual process steps that could be automated or simplified.

HR Partners and Consultants support ICs and Managers at Amazon as they work through HR processes. HR Partners work can be categorized in two parts (1) undifferentiated work that should be automated by workflows, and (2) high touch differentiated work that requires deep engagement with the business. Their job is to focus on differentiated strategic talent management work but they often get derailed with undifferentiated tasks.

**Appendix E – HR Survey**

Between 15 June 2022 and 22 June 2022, we ran a survey of 3255 employees across HR roles and received 563 responses (an excellent rate of 17%). The results of the survey indicate that 73.71% of respondents use Ivy, 19.36% do not use Ivy and 6.04% do not know what Ivy is.

The breakdown of survey respondents is as follows:

**Roles:** HRBPs (29.48%), HRPs (25.04%), HRAs (26.29%), HR Managers (12.26%), HR Specialists (1.95%), and Other HR Roles (4.62%),

**Levels:** L7 (9.41%), L6 (15.81%), L5 (19.36%), L4 (43.69%), L3 (10.48%), L2 (0.36%)

**Tenure:** Over 2 years (31.08%), 12-24 mths (22.20%), 6-12 mths (32.50%), 0-6 mths (13.14%)

Full raw data is available here: [https://tiny.amazon.com/izsunlef/sharamazsitepxf\\_lay15Wopi](https://tiny.amazon.com/izsunlef/sharamazsitepxf_lay15Wopi)

## Appendix F – RAISE Quality Metrics

As we launch our OP1 projects, we will continue to prioritize a bar-raising customer experience. Our core Experience KPIs are based on the RAISE framework<sup>6</sup>:

**Relevancy** - Users find the experience accurate, authoritative and useful (As measured by shared Goal for 80% Customer Satisfaction)

**Availability** - Users are not slowed down or blocked by the system (As measured by shared Goal for Latency below LCP tm99 2.5 secs)

**Inclusion** - Users of all backgrounds are represented (As measured by Goal of 0 Accessibility Defects and Localization in all 10 core languages)

**Self-service** - User experiences are not blocked or slowed down by needing assistance (As measured by % HR cases successfully self-served - ability to measure this due in 2023)

**Ease-of-use** - User experiences are easy to use and understand (As measured Goal of 75% score in Heuristic Evaluation)

RAISE KPIs	Metric	Goal	Ivy & Help Center	Gap to Goal	Inside & Search	Gap to Goal	Phone Tool	Gap to Goal	KNet / Learn	Gap to Goal	MyDocs	Gap to Goal
Relevancy	End-User Satisfaction	80%	73.74%	-6.26%	57.99%	-22.01%	92%	0%	METRIC DUE 2022-Q3		88.10%	0%
Availability	Latency LCP tm99	2.5	5.78	-3.28	METRIC DUE 2022-Q4		METRIC DUE 2022-Q4		METRICS DUE 2022-Q4		METRIC DUE 2022-Q4	
Inclusion	Accessibility Defects	0	10	-10	0	0	98	-98	14	-14	5	-5
Self-service	Tickets	TBD	METRICS DUE 2023									
Ease-of-use	Heuristic Evaluation	75%	36%	-39%	41%	-34%	36%	-39%	METRIC DUE 2022-08		METRIC DUE 2022-08	

<sup>6</sup> <https://w.amazon.com/bin/view/PXF/RAISE>