

Who will build for the builders?

A case of missing on-ramps for web3 talent

This article is on web3 talent, but I first want to take a "50,000 feet" view to motivate the discussion. As founders swarm into crypto, maybe this framework can help structure the landscape to identify opportunities. Products are built for users. Hence it makes sense to start with identifying the end-users in web3. No matter what you build, it is likely for one of these five end-user categories.

1 Utility maximizers	Addressable scale of end-user pool
Offer superior customer experiences using Web3	Billions
2 Profit seekers	
Enable retail and institutions to invest in crypto	100s of millions
3 Community contributors	
Create and sustain vibrant communities	10s of millions
4 Core builders	
Facilitate talent success	100s of thousands
5 Projects	
Enable accelerated development of innovative and secure applications	10s of thousands

- Utility maximizers are the billions that engage with web2 applications today that don't care about the underlying blockchain technology or the decentralization philosophy but will engage with web3 if it offers a superior product. This could be an enhancement of an existing experience i.e., better games, social networks, creator connections, cross border payments, or could be fundamentally new experiences (technically, this category also includes business customers that could benefit from enterprise blockchain)
- Profit seekers are the retail and institutional investors seeking purely financial gains through exposure to digital assets. Institutions need a whole ecosystem of prime brokers, custodians, market makers, risk management, analytics, etc. and retail needs regional exchanges, perpetual stream of innovative products for yield farming, synthetics, options and what not.
- 3. Community contributors don't just hold tokens but are excited about a new future with web3 morals and are immersed in crypto-Twitter with "WAGMI"s and "Probably Nothing"s. They also participate in ecosystem sustenance through voting or making proposals for protocol governance. They need tools to discover, create and participate equitably in their communities (could be DAOs), to create internal org structures, and to coordinate with other communities/ businesses.
- 4. **Core builders** refers to the founders, the core team, the investors, actively building web3 applications full-time. They may be developers but also ecosystem stewards, treasury managers, people evangelists, and all the web2 roles we know. They need to learn the ropes, find a gig, and be able to work in a compliant manner with reliable pay and benefits.



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5. **The project itself** is Separate from 1-4, these are the solutions that provide value to all the above end-users. Project need a suitable blockchain to build upon, developer tools that accelerate product build, security systems for audit/ monitoring/ pen testing, and UX enhancement such as through relayering.

Note my distinction of <u>end-user</u> vs user. As an example, a service that provides decentralized identity for gaming, would still classify as building towards utility seekers in this classification. The reason this segmentation helps is that it firmly ties the project ideas to tangible, observable macro causes that we can expect to serve.

With the framework established, I wanted to understand which of these end-user segments are being catered to today. I took a list of funding rounds to crypto companies in H2 2021 from Crunchbase and what I saw was interesting. Around 60% of the \$50M+ rounds all went to building solutions that would enable retail or institutional traders – not surprising as the asset price booms are what interested most crypto folks in first place. The most upcoming category (~40% of early-stage rounds) was "taking crypto to the masses", i.e., targeting utility seekers, which also makes sense – most people who buy a Tesla buy it because it's a better car. Also, take India for example, top crypto exchanges have 15-20M unique users which is already more than what Zerodha (India's leading stockbroker) has which is ~7M. With asset prices now trading sideways, a growth lever even for the Profit seeker segment will be down-the-funnel movements from utility seekers.

Okay, all reasoned. But now take a moment to note the eerily null funding rounds towards enabling communities and builders in the chart below (to be clear I am not stating that it should be at par with other categories but rather want to show lack of momentum). Talent is the bedrock of any revolution – we are not certainly building a new future without that. "Building for the builders" is not an effort in vain. Crypto startups raised over \$30B last year (5.5x YoY increase) and typically that's at least 70% for talent spend (across roles; rest can be on txn expenses, advertising, hosting, admin tools). Assuming that's budgeted for a 2-year runway, it spells ~70k new hires to be made per year (quick analysis shows this is a ~2X growth in employees). With a take rate of 20%, a **\$2B market** purely for recruitment (coaching, onboarding, benefits not included). <u>Hence this article.</u>



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1			>\$50M rounds in H2 '21	rou	\$2.5 – 15M unds in H2 '	21
1	Take crypto to the masses		21%	\triangleleft	39%	
2 Enable wall street and the holders	Enable wall street	Retail:	32%		31%	
	and the holders	Institutional:	25%	\geq	12%	
0	Make communities work		0%	\triangleleft	1%	
	Build for the builders		0%	\triangleleft	1%	
5	Accelerate & improve	Services/ dev tools:	11%		10%	
	development	Blockchain:	11%	\geq	6%	

Side note - will probably dive deeper into specific parts of this stack in future articles



Build for the builders

A friend of mine escaped from the big city life of Dallas, TX to live among bears at Asheville, NC, right when COVID hit – he never wants to go back. If you're one of those, 37% of web3 roles are perpetually remote vs 7% in web2. Also, if you ever wanted your salary to be paid out by the second, don't think there are many choices of industries out there (SuperFluid is a DeFi primitive that lets you set up real time streaming).

LinkedIn recently published stats that crypto job postings grew by 395% in 2021 vs 98% for broader tech. Even Wall Street banks, once filled with skeptics, added over 1000 crypto roles since 2018. And boom – crypto jobs now command a 20-50% premium over other roles (even within the same institution). High profile transitions to web3 are now increasingly common and it's not just from traditional web2 or financial institutions (e.g., VP of Commerce at Meta moved to OpenSea, SVP Strategy at Mastercard moved to BlockFi), we're even seeing ex-SEC/ CFTC regulators, and FBI agents



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make the transition. In my view, the zero-order bull case for web3 stems from this sheer magnitude of talent inflow. Web3's hunger for talent has just begun – to think there are <1000 full-time developers in DeFi, an asset class with TVL of \$200B, is mind-boggling. This thread speaks volumes.



Source: Somewhere on Twitter

There's jolly good reason for FAANG talent to switch to web3 startups vs web2 startups. As Paradigm writes, the liquidity calculus is fundamentally different. There is no need to predict timings of liquidity events (e.g., IPO, acquisition) or fund the upfront cost of exiting stock options or even having lawyers review them closely in first place. Tokens are rewarded programmatically by a smart contract and are liquid from the moment they vest. Yes, web2 startups will likely start tokenizing equity but that's defacto in web3. Plus, something to not ignore is 'purpose'. A lot of my friends have now made advertising their careers not because they are so passionate about it, but because Google/ Facebook are still amongst the coolest companies where they can solve challenging problems. But now, there's a credible way to work on visionary open projects, be part of an early cult, while still making a lot of money. Also, when bosses move, teams move – no questioning this.

Let me also address the elephant in the room. What happens to crypto talent when there's a pullback in asset prices? The chart below from Electric Capital demonstrates this the best. Developer demand tends to lag price movements as seen in the prior 2017 cycle. By that inference, developers will continue to pour in to web3 well through 2022 as well, even if asset price moves sideways – this makes sense since projects will look to spend the funding raised. Critical to note here is that developers stay put through bear markets presumably due to the costs of switching out and potentially an appreciation for the new style of working (more at the end of the article).





Source: Electric Capital Developer Report 2021

All right, we've established the white space and a large, growing market. Time for the decacorn question: how do we build for it?

There are opportunities to build across the talent journey:



(1/3) Learning

Web3 presents a totally different development paradigm. While frontend is still JavaScript/ HTML/ CSS, the backend architecture is entirely different (involving wallets for signing transactions, nodes to interact with the chain, Ethereum Virtual Machine for computation, IPFS for hosting, etc.). Beyond architecture, standard agile processes of iterative development and deploying patches are not as straightforward (Ethereum smart contracts are immutable; upgradeable frameworks are available but bring up questions related to admin rights). And Ethereum is just one of many chains and only 20% of new web3 developers are choosing this ecosystem. Even outside the top 5 ecosystems (that includes emergent Polkadot, Cosmos, Solana), Terra, ICP, Fantom, and Harmony all 4x'ed their developers in 2021. Each of these chains bring their own development languages and environments, e.g., Solidity for Ethereum/ EVM compatible chains (such as Polygon, Fantom) vs Rust for Solana/ Terra. And the architecture can vary too: for example, Solana has a "stateless" design whereas Ethereum is "stateful" (i.e., token balances are stored within the contract), implying design principles around multithreading, contract security are all markedly different. And in case you're thinking multi-chain tooling obviates this problem, it simply isn't that developed yet (Moonbeam Parachain for Polkadot, Aurora for NEAR that allow compatibility with Solidity contracts are rare).

In line with the web3 ethos, there is no shortage of freely available web3 content. You can even make a decent \$20-30 answering 101 quizzes on Coinbase Earn or earn a Flying Robot NFT by racing through Gitcoin quests. But ask any serious web2 migrant how they learnt the ropes – it's a low-quality, fragmented journey through YouTube channels, Discord servers, Twitter threads, Substacks, and random articles like these in Now the first port of call for web2 migrants are existing MOOCs, e.g., Coursera, Udemy; they do offer Ethereum courses and are now slowly expanding to Solana, but the buck stops there. Plus, these carry the usual MOOC problems of low completion rates, poor student engagement, and lack of in-depth feedback cycles. Alchemy has made a splash here, setting up Web3



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university; while the content could be gold-standard, I would think the focus is on acquisition for their core products. Nonetheless, these are still passive learning models. CryptoZombies, a gamified interactive programming experience where you build a Zombie Factory with randomly generated DNAs, was actually a great first foray back into active learning back in '19. Recently, Buildspace (backed by a16z), is pushing ahead on activity-based learning with individualized product outcomes. From a pure learning outcome perspective though, live cohort models are king. HackerDAO and Gitcoin's Kernel Fellowship are worth pointing out and as is common with these models, they also offer peer networking, recruitment support (GitHub clean-up, intro to employers, etc.) and retain alumni for long-term community. However, live and personalized classes are self-limiting from a unit economics lens and outcome-based monetization is not straightforward. Buildspace borrows some merits of the cohort model by connecting learners to an async channel to help with issue resolution and networking.

Software development isn't the only role – there's ecosystem growth, community ops and more! The lack of enablers for these other roles isn't too dissimilar from web2 – players like Flockjay that focus on non-dev roles are not common even in web2, and that gap is glaring here given complexity of onramp. Recently, Discord communities have sprung up offering targeted education (e.g., Jump for Marketing) but there is much scope here considering the many traditional corporates (Nike, Meta, NVIDIA included) who will want to upskill their talent for intermediate crypto-speak. And whether developer or not, roles also require application-specific knowledge, such as an appreciation of DeFi logic. RabbitHole is a great example of such a project and even tackles this with practical training. For example, Rabbithole tasks could range from a simple token swap or lending on Compound to more complex tasks involving multiple protocols (note because of public ledgers, activity completion can be easily verified!). There are even different tasks for a DeFi asset manager track vs a Protocol Politician (governance) track!

Keep in mind that the world's largest developer pool is not in the US but in India (4.3M vs 5.8M). Adding to that the momentum of successful SaaS companies building from India for the world (think Freshworks, Druva, Zenoti), Polygon/ MATIC (a L2 blockchain) having deep roots in the country, and wide-spread crypto familiarity (over 15M users), India could become a web3 powerhouse, particularly for growth-stage ventures. The Ed-tech opportunity is certainly not restricted to the US.

(2/3) Transitioning

To start, what are roles in web3? It's a wide spectrum – could be in a web2 company/ financial institution venturing into DLT (some will disagree), with a crypto-native startup or with a DAO. Roles could be full-time or freelance, including working with 2-3 DAOs in parallel. Placing talent has two parts to it – finding a role and proving the skills. Let's tackle each one.

On the freelancing side, Upwork and Fiverr already have web3 service provider listings and with Braintrust's (Tiger backed decentralized talent marketplace) recent \$100M round, they are consciously starting to partner with crypto projects (starting with Solana). However, I think these platforms will have a demand-side problem. For acquisition economics to work, they must focus on high LTV mid-large companies, but most web3 projects operate very lean teams. Plus, as an outcome of the token-based compensation schemes in web3, talent is even more willing to take early-stage risk than with web2. This results in the bulk of talent-project encounters happening on Twitter DMs and Discords. Recruitment agencies have also sprung up – some with creative names like Proof Talent \bigcirc and some even aspire to be DAOs! However, much of this doesn't capture the real gig discovery process in web3. Imagine being able to sit through C-suite discussions and be privy to upcoming



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strategic moves before taking a job. Possible at FAANG? No, but you can certainly head to Snapshot and follow governance proposals from a variety of projects and even vote (if you have tokens) – this is Direct Immersion. ForeFront is a good example of a project that has reimagined this process – becoming a DAO gateway, providing an overview of DAOs' activities, key participants, trends, and third-party insights. I am also looking forward to Station.express (do check out their UX) – they have a more holistic approach of creating a "Trip" that allows talent to take an immersive tour through various roles and earn credits – fascinating.

A crypto-native approach to functionally explore web3 i.e., work with a variety of projects (to reduce exposure to a particular project (or) to narrow down interest), is Service DAOs. These DAOs aggregate talent and provide agency services to other DAOs or web3 participants. Examples include Lex DAO for legal services, Raid Guild for product development, YAP DAO for public communications and Vector DAO for creative design/ marketing. Some of them also de-risk the pay-out in illiquid tokens by pooling received tokens in a managed portfolio and then distribute a commensurate token mix. I expect more such specialized guilds to appear and serve as a low-risk launch pad for web2 talent looking to experiment.

The next part is proving credentials, and from a recruiter's POV: screening candidates. The conundrum here is web3 requires vividly different skills, and a healthy web2 career or an Ivy League education does not translate to web3 fit. Given most talent is looking for their very first web3 gig, the concept of a resume has evolved to being a collection of crypto-relevant actions. Such on-chain resumes must demonstrate both category experience and functional skills –> this entire space is nascent. Today on the category side, candidates use a patchwork of POAPs (Proof of Attendance, essentially an ERC-721 token that has date and timestamps) collected at conferences (like EthCC, NFT.NYC), and share scores/ leader-board positions from wallet rating services such as Atomic Blue/degenscore. As I mentioned earlier, platforms like Rabbithole/ Zapper guide/ consolidate this immersion process. Nonetheless, there is much to be reimagined here for each vertical (gaming, NFT, DeFi, etc.), e.g., a "build your own" DeFi Showcase could include adoption rate of protocols, learning curves with new instruments, superior entry/ exit timings, complexity of manoeuvres, chain-wise familiarity, index correlation, etc.

What about functional skills? For developer roles, there is scope to innovate on the GitHub profile, for example by identifying smart contracts deployed by a DID (decentralized identifier) on the main-net and test-nets. This will however not capture work done on-the-job, as that will likely be deployed from a different address – needs some creative solutioning. A few teams at Developer DAO and Wharton are tackling this. Also, it's worth pointing out that developers building on Radicle, a web3 GitHub, may be able to showcase their portfolio more natively. On the community side, Backdrop's personal command centre (integrates the snapshot voting history, project-wise activity, tokens held, etc.) could provide valuable signals to recruiters. What's the solution for token architects? Not available yet.

A last piece here is the assessment process. Today web3 does not need to hire at the scale of web2, thus tools like Code Signal, HackerRank, Codility, etc., that enable setup, and drill down of technical coding interviews are not as important. But this will be needed very soon. It's not complex for incumbents to expand into web3 services, but it is possible to build a tailored product that tests topics like oracle integration, writing to IPFS, querying with GraphQL, etc. while supporting interviews across multiple chain environments.

(3/3) Working

Payroll



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To be clear, joining a web3 project does not mean joining a DAO. Most want to become one, but take a while, if at all. The pre-DAO phase pay-out model is a familiar mix of fixed pay (USD/ stablecoin) + bonus + token rewards. Without getting into the web2 FinOps mire here, I only want to point out that with globally distributed teams and a mix of digital assets involved, there is much scope for bulk payment automation that is integrated with multisigs (e.g., Gnosis safe). Seed stage startups, Coinshift (Sequoia backed) and Multis (YC backed) are examples in that direction.



Source: Bankless and Gitcoin DAO survey

With the lack of a central HR team, compensation models in DAOs can stand out as (uncomfortably) different for web2 talent. The Bankless + Gitcoin survey shows that <20% of contributors are paid at fixed hourly rates, with project bounties, and community agreements (notice DAO native models like "tipping") being prominent. As you can expect, a common pain point for contributors is the lack of income stability with project-based pay-out. Imagine having to submit a proposal that then gets voted and approved for every morsel of work. Community driven pay-outs reflect the ethos of web3 and have been made very popular by native tool called Coordinape that allows members to allocate tokens to each other based on a brief reading of their work. The tool however has limitations around concentration of pay-outs to the most visible participants, instances of friendly/ revenge allocations, limited voice for newer contributors when the DAO become large; Orca Protocol, SourceCred and others are solving some of these issues. Beyond community pay-out though, there is certainly value in fixed pay-out too and Yearn Protocol experimented with a retention package for its early core team. While more such packages will come, an early-salary DeFi model could find adopters.

A second category of stability issues is around pay-out currency. The same survey also indicates that the most common pay-out model is 20% DAO native tokens and 80% stablecoins/ ETH. However, for the ecosystem to scale, DAOs would prefer a higher pay-out % in native tokens while a larger talent pool can be attracted with stablecoin pay-out. Yet another DeFi opportunity here.

Compliance and administration

Web2 offers more than monthly salary. Compliance with local laws is a given. Payroll sends over the tax forms. Health insurance and 401ks are table stakes. How does that work out in web3? Not so easy. It's further complicated by the preference for web3 natives to remain pseudonymous in their roles,



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but Uncle Sam will want KYC. While regulators figure out whether DAOs are cooperatives, non-profits, or regular corporations, fact remains that people will need a compliant way to work for them. Plus, even when the regulation becomes clear, people will want to work with multiple DAOs part-time.

Most DAOs leave all of these to the contributors to figure out independently and this could involve hiring lawyers (and explaining DAOs to them) to figure creative solutions including setting up own LLCs for personal liability protection (not legal advice). Opolis has a crypto-native solution; they leverage Colorado state's Limited Cooperative Association (LCA) structure, which allows a mix of liability protection and cooperative principles, to set up a Decentralized Employment Organization (DEO). DAO contributors can buy common stock of this LCA and are then covered by Opolis for all compliance (including issuance of a consolidated W-2), health insurance and other benefits. They are also KYCed at the DEO level but can continue staying pseudonymous at the DAO level. I would expect that today's tech enabled PEOs like WorkMotion or Multiplier will find this category meaningfully sized very soon.

To limit the scope of this piece, I won't get into the broader remote work tooling here. But web3 projects will be a very interesting segment for them to target. There are some nuances to tackle. Less than 20% of those who work for DAOs work for a specific DAO full-time. Products need to work for hybrid teams where they work 2-3 hours a day for 2-3 days in a week.

Way ahead

Fredric Laloux, an ex-McKinsey executive, coined the term "Teal organizations" in a landmark book in 2014, to describe structures that emphasize peer-to-peer relationships and worker autonomy. Over time, we've seen the steady shift of talent from power and process driven organizations ("amber orgs" – say banks, public sector) to organizations that allowed questioning of authority although within a hierarchical pyramid ("orange orgs" – most meritocratic corporations today). The world's 'best places to work' have always gone one step further. Per Larry Page and Sergey Brin, "we encourage our employees, in addition to their regular projects, to spend 20 percent of their time working on what they think will most benefit Google". At its core web3 presents the next step of this evolution to a "<u>new way of working</u>" and that is bound to entice talent. Now, it's time to build the picks and shovels.

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