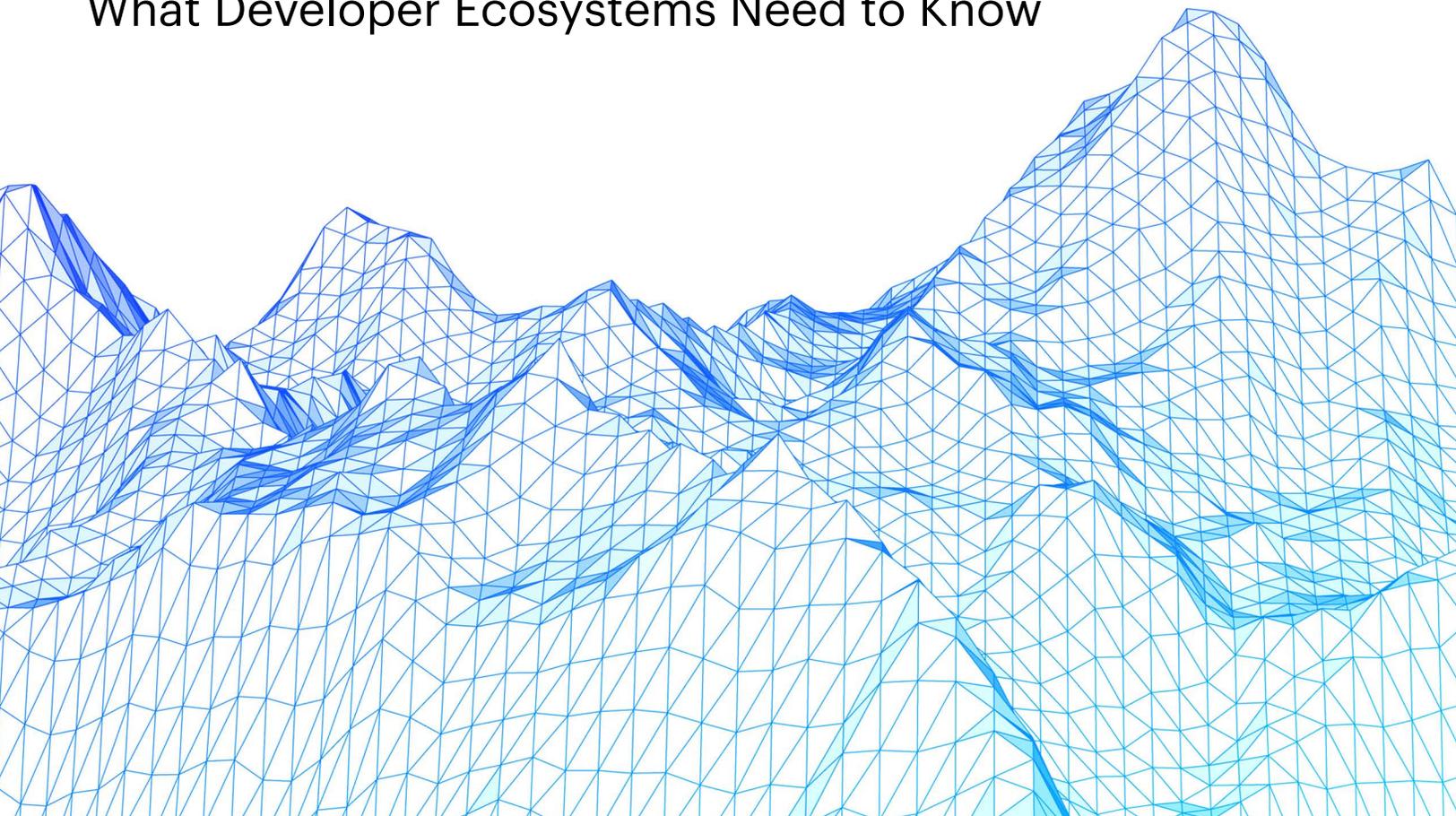


ENGAGING THE DEVELOPER COMMUNITY

What Developer Ecosystems Need to Know



Developers are the heartbeat of digital innovation, making a thriving developer ecosystem critically important to the success of any platform or technology. Industry leading companies recognize the need to build a strong relationship with the developer community, but many continue to struggle with how to do it effectively. The first challenge is understanding the variety of players. The developer ecosystem includes company employees, large and small partners, full-time independent developers and a range of part-time, opportunistic developers. Their wants and needs vary greatly, but are specific and highly nuanced.

Through proprietary research with more than 750 US-based developers, Accenture learned what's important to developers and how they access resources. We gathered developer perspectives on how well 15 of the top platforms perform against their expectations, how ecosystems stack up against each other and which ones are setting industry standards. The study gives companies a novel perspective to benchmark their developer ecosystem against and progress toward best-in-class developer offerings.

Insights from the 2018 Accenture Developer Ecosystem Survey reveal that developers are pragmatic in their wants and needs.

Here are
5 KEY FINDINGS:

- 1 Education tops monetization** in what developers want most from ecosystems
- 2 Accurate content** makes all the difference, especially for workhorses ⁱ
- 3 Effective support** is a close second to content
- 4 Market positioning matters**, but marketing less so
- 5 There's room for companies to differentiate**

EDUCATION TOPS MONETIZATION IN WHAT DEVELOPERS WANT MOST FROM ECOSYSTEMS

Nearly three-quarters of survey respondents want to learn new skills, or improve current skills, when engaging with a developer ecosystem. Learning is particularly important to professional developersⁱⁱ (78 percent agree) and to those working in medium-sizedⁱⁱⁱ organizations and enterprises.^{iv} The desire for education spans generations, as all age groups are equally interested in keeping their skills current.

It does not come as a complete surprise that learning is at the forefront. The technologies and techniques of software development advance at a breakneck pace and being skilled in the latest and greatest is often the key to being valued. Developers are also highly motivated by peer acknowledgement and they share their learning openly. While it's intuitive that developers want to learn new skills, it was surprising to see how poorly developers perceive companies cater to this pressing need.

Compared to learning new skills, monetization rated lower on the scale of developer needs. Just 64 percent of respondents report they need to be able to make money through engaging with a developer ecosystem and slightly fewer say profitability is the most important factor when choosing a developer ecosystem. Certainly, the bedrock for developers is to monetize their development investment, but ecosystems must have a number of other things in place first – such as a compelling value proposition, in addition to skills development. Without these more highly-ranked elements the ecosystem will struggle, even to the extent that offering to pay developers to develop applications can still fail to engage them.

Developers want a return on the time they invest in a developer ecosystem, but education and skills development is a prerequisite to revenue generation. In fact, certification could be a highly productive investment for companies to offer their developer ecosystems: 71 percent of developers agree a platform should offer formal training and certification. Companies that build up the educational component of their programs will be clearing the path for developer engagement and monetization.

74%

want to **learn new skills, or improve current skills**, when engaging with a developer ecosystem

64%

want to **make money through engaging** with a developer ecosystem

62%

report **profitability to be the most important** factor when choosing a developer ecosystem

69%

say a **return on their investment of time is the most important** factor when choosing a developer ecosystem

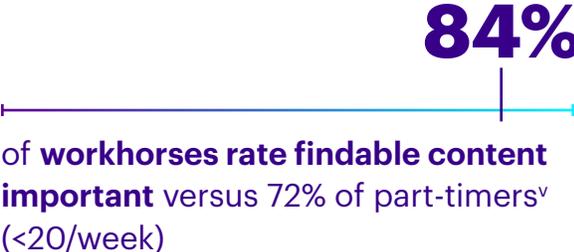
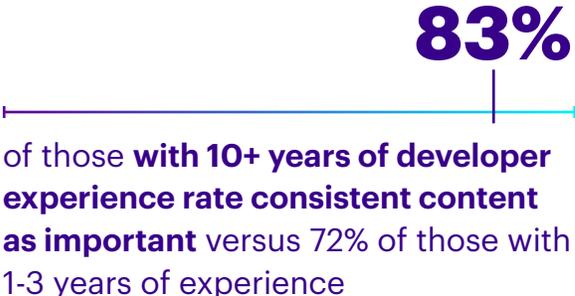
ACCURATE CONTENT MAKES ALL THE DIFFERENCE, ESPECIALLY FOR WORKHORSES

Technically accurate and up-to-date content rank as the two most important elements in a company's developer ecosystem of the 15 elements the research queried – again, indicative of the pragmatic nature of this community. In fact, 9 in 10 professional developers rate these elements as critical. That content is findable and readable also ranks high in importance. This makes sense, since developers' most preferred channel for getting questions answered is reading documentation and searching for answers on their own.

More experienced developers rate content's importance higher than less experienced developers. And workhorses rate the importance of all aspects of content (accuracy, currency, findability, consistency, readability) higher than peer developers who program fewer hours per week.

We asked developers about their satisfaction with the ecosystems of the 15 platforms we investigated. Amazon Web Services (AWS) is perceived positively on many dimensions, from being developer-friendly to keeping developers informed and providing monetization opportunities. In the area of content however, Microsoft Azure developers report being most satisfied with the accuracy, currency, findability and readability of content provided to them.

Overall, just 24 percent of developers strongly agree that developer ecosystems are generally good at providing the content they need. With developers screaming for accurate and up-to-date content, this is an area where ecosystems need to invest. That's not an easy feat – as soon as documentation goes up it becomes obsolete – but having a developer feedback loop in place can help considerably in keeping content vibrant.



SUPPORT IS A CLOSE SECOND TO CONTENT

Developers rank timely, knowledgeable and capable support just after accurate and current content in the list of most important elements of a company's developer ecosystem. While developers want the right answer quickly, they rate knowledgeable support as more important than timely support by a small margin. Getting it right trumps getting it quickly if a trade-off is required.

As with content, workhorses and experienced developers rate timely and knowledgeable support higher in importance than those who program less or are less experienced. While overall personalization of support (knowing what software stack you use, what API version you have) ranks lower than knowledge and timeliness, it is universally important to developers of all experience levels. And, empathetic support – focusing on resolution, not metrics; understanding of the developer perspective – is the least important of the support elements queried, showing once again the generally independent and low maintenance nature of the developer community.

Android developers are more satisfied than others with the level of knowledgeable support they receive. Android also ranks highest for personalized support. Microsoft Azure developers report the greatest satisfaction with the timeliness and technical background of the support they receive. As with content, there's significant room for ecosystems to improve their support: just 23 percent of developers strongly agree that developer ecosystems are generally good at providing the support they need.

Improving support begins with knowing one's developer audience, understanding the inherent nuances and tailoring support accordingly. Companies should consider customizing the range of support channels to specific segments, ensuring that service level agreements (SLAs) are published and met, focusing on near real-time support for critical developer activities and being authentic, open and honest when issues arise. Content and support are tightly integrated, with content being an important first line of support. Enhancing often-static content by enabling developers to communicate with their peers in supported forums (internal and external) can help a platform stand out in developers' minds for both content strength and support.



MARKET POSITIONING MATTERS, BUT MARKETING LESS SO

The openness of an ecosystem (either by strategy or ubiquity) is an important consideration for developers when selecting a platform. Developers consider how well the platform is integrated with other companies to be as important as readable and consistent content and personalized support. Integration is especially important to developers working for enterprises, 81 percent of whom rate it highly.

Market relevance (has the platform stood the test of time and will it continue to do so) is also an important foundational element to developers, particularly professional developers: Nearly 90 percent rate market relevance as important compared to 64 percent of hobbyists.^{vi} Reputation (how my peer developers regard it) also matters, more so to those with more than 10 years of experience than new developers. Android is ranked highest among its developers for reputation while Microsoft Azure gets the highest marks for market relevance.

Traditional marketing – such as event frequency, variety, effectiveness, coolness and swag – is not valued as highly as other ecosystem elements, but is still important to 65 percent of developers. Marketing to developers may not require glossy materials and fancy events. Nonetheless, there’s ample opportunity to improve how companies promote their market position and communicate developer program capabilities. Only 20 percent of developers strongly agree that developer ecosystems are generally good at marketing their capabilities to them.

Webinars and tutorials can be strong marketing vehicles to provide the educational value developers crave. Focusing on value, and giving developers the opportunity to solve challenging problems through the platform’s capabilities, effectively allows the technology to market itself. Developers are typically curious, smart and part of a tight-knit, sharing community. They are continually searching for new and inspiring solutions. If the technology offers the opportunity to accomplish their objectives then developers will find it, endorse it and share it.



THERE'S ROOM FOR COMPANIES TO DIFFERENTIATE

Developers associate different platforms with different strengths. For example, developers in our study consider AWS the most future looking. Google Cloud Platform is considered the most innovative and caring about the needs of professional developers. And iOS has the most credibility among hard-core developers. But there's wide-open opportunity for platforms to differentiate their developer ecosystems. Nearly half of developers think that all developer ecosystems are pretty much the same in terms of usefulness.

If such differentiation can be accomplished, developers will respond. A full 70 percent agree that a platform offering a truly differentiated and meaningful developer ecosystem would get a much larger part of their business. The same percent believe they could contribute more client value if provided with a better developer ecosystem. What would motivate developers to switch? At a macro level, developers report they'd switch to ecosystems they perceive to be focused on the latest technology, future-looking, developer-friendly and helping them build their career. However, programming is a logical discipline and our study shows that programmers very much value those things that help them solve problems and do their job better and more efficiently. That means content and support are gateways to success.

47%

think **all developer ecosystems are pretty much the same** in terms of usefulness

70%

agree that a platform that offered a truly **differentiated and meaningful developer ecosystem** would get a much larger part of their business

What would motivate switching within the next

12 MONTHS?

53% said being focused on the latest technology

44% said being more future-looking

41% said being more developer-friendly in terms of ease of use

40% said helping me build my career

STANDING OUT FROM THE CROWD

Our research indicates that companies have many opportunities to improve the way they engage and support the developer community. Gaining a deeper, more nuanced understanding of who is in the ecosystem is a good first step but an emphasis on improving content, education and support is also required. Rethinking the interactions and developer journeys can result in a more active and value-creating community. There is still significant opportunity for savvy companies to become the preferred platform for development. The game isn't over, but action is needed now.

As the industry becomes more congested, barriers to entry continue to lower and developers can more easily move across platforms, there's little room for companies to assume the strength of their technology alone will attract and retain developers. Those responsible for developer ecosystems need to understand what developers think of their ecosystem, determine where their ecosystem capabilities stand relative to peers and define actions that will help them move their ecosystems toward differentiation and best-in-class. This research provides a starting point. Spanning 15 leading platforms, the research contains insights platform companies need to engage the developers they most want and need to sustain their success.

Platform companies that stand out among their competitors offer developers the chance to solve challenging problems in interesting ways. They:

Inspire developers, by continually pushing technology boundaries and expanding the art of the possible

Trust developers, by open-sourcing their code and granting access to their libraries and repositories

Educate developers, by providing continually updated and comprehensive learning and certification programs

Inform developers, by providing relevant and perpetually up-to-date information written exactly as developers need it to be written

Support developers, by being there when needed most, in the ways that each developer group needs them to be

Engage developers, by understanding what developers need to be successful and enabling mutually valuable relationships to grow

Respect developers, by recognizing the value they provide, the knowledge they possess and that their collective success is intertwined.

In return, the developers they engage help to drive user acquisition and product usage that leads to the platform's revenue growth and rising market valuation.

For a more in-depth discussion on the Accenture Developer Ecosystem Research, contact:

AUTHORS

Stephen Donnelly

stephen.donnelly@accenture.com

NOTES

- i **Workhorses** refers to developers among our survey respondents who program more than 50 hours per week.
- ii **Professional developers** refers to developers among our survey respondents who do 100 percent of their programming for professional work
- iii In our survey, **medium-sized organizations** are those with 100 to 499 employees
- iv In our survey, **enterprises** are those organizations with 1000 employees or more
- v **Part-timers** refers to developers among our survey respondents who program less than 20 hours per week.
- vi **Hobbyists** refers to developers among our survey respondents who program or contribute to open source projects as a hobby

ABOUT ACCENTURE DEVELOPER ECOSYSTEM RESEARCH

The Accenture Developer Ecosystem Research study is based on a survey that was conducted online in December 2017 with 752 software developers based in the U.S. The sample includes respondents who are least 18 years old, self-identify as a software developer and/or program as a hobby or contribute to open source projects. All respondents have been a software developer for at least one year and spend a minimum of 10 hours per week coding. They represent a combination of public and private companies and organizations of varying size. The survey and related data analysis quantifies perceptions of various platforms' developer ecosystems, likelihood of recommending those platforms, and preferences for interacting with developer ecosystems.

ABOUT ACCENTURE

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions – underpinned by the world's largest delivery network – Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With more than 435,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com.

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