AT&T

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Can the way the workplace is constructed—physically, virtually, and managerially—affect employee performance? The Deloitte LLP Center for the Edge report *Work environment redesign*, based on a study of more than 75 organizations, argues that the work environment can have a critical impact on employee productivity, passion, and innovation. The study outlines nine design principles that can help employers gain more value from their people.

This case study explores ways that AT&T[1] is applying these design principles to enhance its own corporate environment.

Company background and results

Telecommunications giant AT&T integrates third-party developers into its innovation process through the AT&T Developer Program. The program gives developers access to resources, expertise, connections, and funding in order to create applications that use AT&T devices and its network. Two resources of the AT&T Developer

Program include the AT&T Foundry and the AT&T Mobile App Hackathon:

- The AT&T Foundry is an innovation center that attracts external developers, venture capitalists, and other members in the community to join the AT&T innovation process. AT&T built three foundries in hotbeds of talent: Silicon Valley for consumer software, Israel for network infrastructure software, and Dallas for enterprise software.
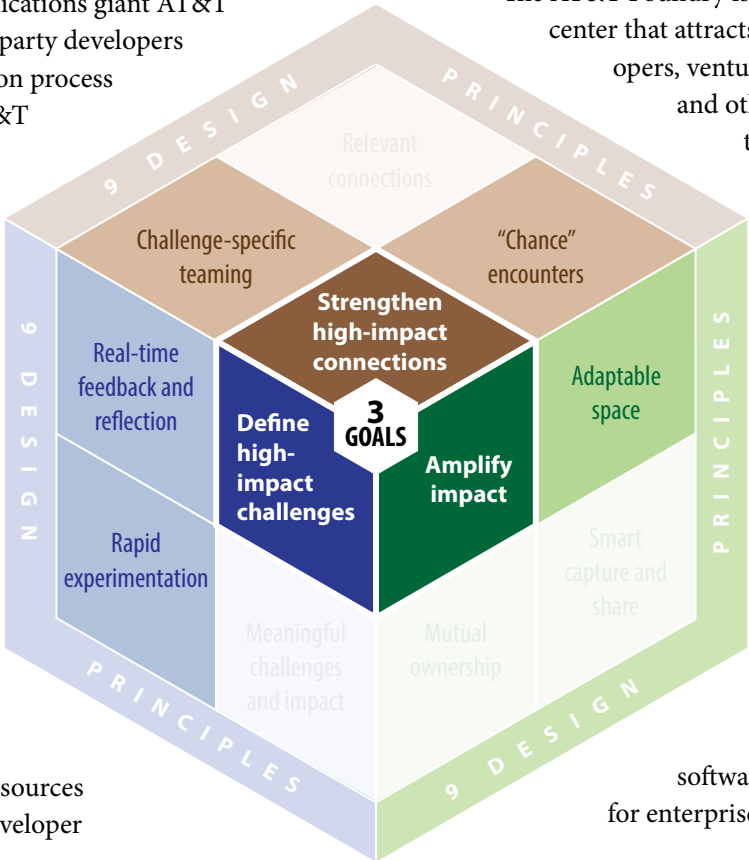

Figure 1. Work environment design principles used at AT&T

Each foundry uses adaptable space and challenge-specific teaming to help shape lively interactions among internal and external teams.[2]

- AT&T Mobile App hackathons are overnight developer collaboration events focused on quickly prototyping apps. AT&T hosts these fast-paced and intense events across dozens of US cities. Each hackathon encourages "chance" encounters, real-time feedback, and rapid experimentation to help drive results. Each event may have a different theme for developers to consider (for example, tablet apps, education, or health). In addition to producing new products, hackathons engage a large ecosystem in each city they occur in, generating significant brand value for AT&T.

These programs have been successful on many fronts. As a result of the new resources for collaboration, the AT&T Developer Program has been cited as reducing the time to market to one-third of the typical timeline.[3] The program also increases revenue potential, given the development of new apps. One language instruction app developed in a hackathon, Monkey Write, has approached over 10,000 downloads; along with many other apps, it has contributed toward the 4.9 billion calls on the AT&T network as of September 2012.[4]

As more and more developers participate in AT&T's ecosystem, AT&T's wireless customers receive products and features that generate meaningful revenue and customer loyalty.

With this success, the Developer Program has been rated by mobile developers for six consecutive years as the best developer program hosted by a carrier.[5]

Adaptable space

Each AT&T foundry's space is fully adaptable, with walls, whiteboards, tables, and other equipment on wheels. Teams of AT&T employees, external entrepreneurs, venture capitalists, and other local foundry participants change the workspace frequently to suit their needs. Because the foundry's adaptable space shifts constantly to suit fast-paced changes, teams can focus on creating better ideas. Jennifer Magnolfi, a specialist on adaptable workspaces, emphasizes that the ability to personalize the environment reduces barriers to co-creation and collaboration while increasing serendipity and accelerating learning.[6]

One startup focusing on network technology, Intucell, was attracted to AT&T's foundry for its unique resources. Because the teams working with Intucell changed frequently, the organization needed many options and spaces that fit the nature of its work. Through the foundry's access to Intucell, AT&T call retention and throughput speeds increased by 10 percent and overloading decreased by 15 percent in California and Georgia.[7]

Challenge-specific teaming

In another foundry success, an AT&T team that was building functionality for U-verse, an Internet-delivered TV service, was able to access the talent it needed to finish its work. AT&T employees were interested in accelerating the development of the U-verse feature, and they looked to the foundry for external specialists. By accessing the list of startups housed at the foundry, the group recruited passionate team members to work on the project—regardless of where they resided or whether they worked for AT&T. This challenge-specific teaming mechanism quickly matched the appropriate talent to the problem. Because of this autonomy in teaming and other design principles, new products and features that used to take AT&T three years to develop now take only eight to nine months.[8]

Rapid experimentation

AT&T also hosts Mobile App Hackathons in various US cities to attract greater public awareness, participation, and, ultimately, loyalty. Attendees of the approximately 24-hour-long events form teams and develop new mobile apps. Each group is encouraged to quickly develop and test new features, without the negative consequences for failure inherent in more traditional settings. By fall 2012, 32 hackathons had generated over 500 apps, 14 of which went to market. One of the 14 apps came from Chiu-Ki Chan, who, in 2011, decided to attend a hackathon in San Francisco. After she saw one prize, a JetStream tablet with a working stylus, Chan thought about creating an app that teaches a user how to write Chinese. Within the hackathon's time constraints and focus on quick iterations, Chan prototyped Monkey Write in 6 hours, launched it in 4 months, and reached over 10,000 downloads. Using rapid experimentation, Chan turned a well-developed idea into an entirely new business.[9]

Real-time feedback and reflection

At each hackathon, teams receive coaching and feedback on various topics from veteran developers. A team of young developers from the start-up Orbotix participated in a hackathon in Las Vegas in early 2013. Orbotix had previously developed the Sphero, a robotic ball controlled with a swipe of the finger on a mobile device. In the hackathon, the Orbotix team focused on prototyping a rocket launch app that leveraged the same swiping motion. Roaming hackathon coaches quickly assessed the team's progress and helped it come up with the right pitch to convince judges that the app was a promising prototype. This real-time feedback helped the team win $10,000.[10]

"Chance" encounters

AT&T's hackathons also bring together a diverse mix of participants, including developers, designers, marketers, entrepreneurs, students, corporate sponsors, and potential funders. By attending multiple AT&T Mobile App Hackathons, developers increase the probability of "success" through accelerated "chance" encounters that eventually turn good ideas into great businesses. At a September 2012 hackathon in Palo Alto, a Center for the Edge fellow observed two developers who had never met before interacting at the same competition. They were coding a similar idea and eventually bumped into each other over lunch. After taking the leading ideas from both designs, their product became much stronger and weathered critiques from the final judges.

Lessons learned

- By working in short sprints and testing frequently, companies are able to "fail fast," finding their errors quickly and fixing them; this technique both improves and accelerates the result.

- Getting feedback from customers allows workers to prioritize, thereby improving productivity.

- Engaging the ecosystem using valuable pools of knowledge (such as APIs and sample code), building a pipeline of developers, and partnering with the ecosystem in a non-competitive way accelerate learning and time to market.

Endnotes

1. Content approved by and included with the permission of AT&T.

2. Connie Guglielmo, "AT&T makes 'foundry' a verb, asks employees for TIPs," *Forbes*, January 4, 2013, http://www.forbes.com/sites/connieguglielmo/2013/01/04/att-makes-foundry-a-verb-asks-employees-for-tips/, accessed January 2013.

3. AT&T News, "Developers creating the next great social app at AT&T/Facebook hackathon," http://www.att.com/gen/press-room?pid=22828&cdvn=news&newsarticleid=34422, accessed October 2012.

4. Alex Donn (developer evangelist, AT&T Mobility) and Lauren Karasek (managing supervisor, Fleishman-Hillard), interview, October 2012.

5. Tendril, "AT&T, BMW and Tendril team up for a hackathon aimed at the intersection of electric cars, the connected home and mobility,"

press release, November 13, 2012, http://www.tendrilinc.com/press/att-bmw-and-tendril-team-up-for-a-hackathon-aimed-at-the-intersection-of-electric-cars-the-connected-home-and-mobility/, accessed June 3, 2013.

6. Jennifer Magnolfi (development specialist), interview with the Center for the Edge, October 2012.

7. AT&T Innovation Space, "Self-optimizing network technology is a crowd pleaser," http://www.attinnovationspace.com/innovation/story/a7781187, accessed February 2012.

8. Edward Schmit (acting executive director, API Platform, AT&T), phone interview, November 2012.

9. Donn and Karasek interview.

10. Jon Carroll (director of software, Orbotix), interview, January 2013; Ross Ingram (developer relations, Orbotix), interview, January 2013.

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Kelly Cheng is a consultant in Deloitte Consulting LLP's Strategy & Operations practice. She focuses primarily on growth strategy work in the health care, financial services, and technology sectors. Many of her clients look to emerging technologies to drive growth opportunities. Her work at the Center includes conducting primary and secondary research on talent development and helping to develop the launch strategy for "Pragmatic Pathways," a framework to help companies scale change.

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