# Work Token

**TREND REPORT-**

BLOCKCHAIN,
CROWDSOURCING,
EMPLOYEE REWARDS AND RECOGNITION

# 1. Crowdsourcing

INTERACTIONS, SIDES & NETWORK EFFECT IN CROWD-SOURCING PLATFORM

## What?

**Crowdsourcing** is the practice of utilizing the wisdom of a group for a common goal. It is best applied when attempting to solve complex problems in an innovative way or streamline intricate processes.

## How?

In order to crowdsource successfully, a business must first break a larger project up into individual micro-tasks. Workers will then unite to tackle these micro-tasks in small pieces, effectively expediting the process.

The way a business decides to gather workers that will perform these tasks often correlates with the kind of task that needs to be completed. A business may use a digital space -- sometimes called a crowdsourcing platform or micro-labor site -- to unite these workers into one place and serve them the micro-tasks.

For more complex projects that require workers with particular specialties, the business may utilize a more specialized platform that is industry-specific. For example, many software developers utilize GitHub for this purpose. If a business is gathering customer data, they may turn to social media or a similar consumer-facing platform to crowdsource information from customers.

# Crowdsourcing

## Four Archetypes of Crowdsourcing Information Systems

Current typology aims to sufficiently cover the specified meta-characteristic – i.e., how a crowdsourcing information system makes use of crowd contributions to achieve its organisational function – by differentiating two fundamental dimensions: (i) whether a system seeks homogeneous or heterogeneous contributions from the crowd and (ii) whether it seeks an emergent or a non-emergent value from these contributions.

(i) A system that seeks homogeneous contributions values all (valid) contributions equally. Homogeneous contributions that comply with the predefined specifications are seen as qualitatively identical; the system is geared to mere quantitative processing. In contrast, a system that seeks heterogeneous contributions values these contributions differently according to their individual qualities. Heterogeneous contributions are seen as alternatives or complements and are processed accordingly. This dimension is inspired by the notion of heterogeneous components (or components perceived as such), which is studied in various systems (Heinrich et al. 2011 p. 16). A particular focus on heterogeneity can be found, e.g., in the context of distributed computer systems (Maheswaran et al. 1999) or agent models in economic systems (Hommes 2006).

(ii) A system that seeks a non-emergent value from its contributions derives this value directly from all or some of the individual contributions in isolation. In such systems, an individual contribution delivers a fixed value, which is independent of other contributions. A system that seeks an emergent value from its contributions, however, can only derive this value from the entirety of contributions and the relationships between them. An individual contribution therefore only delivers value as part of the collection of contributions as a whole. Emergence is a philosophical concept that is, among others, central to systems theory to denote properties of a system that are not possessed by its isolated components but rather depend on the relationships among them in a composition (Bunge 2003 p. 12ff.; Checkland 1988 p. 243; Heinrich et al. 2011 p. 15; Weber 1997 p. 37).

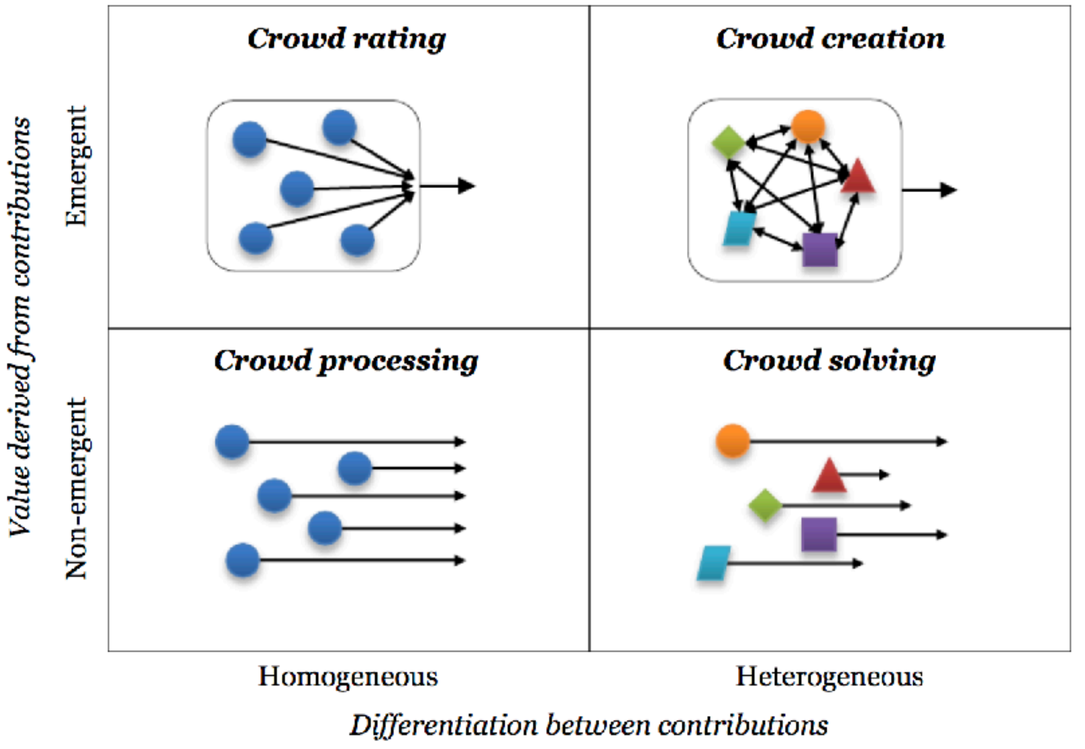
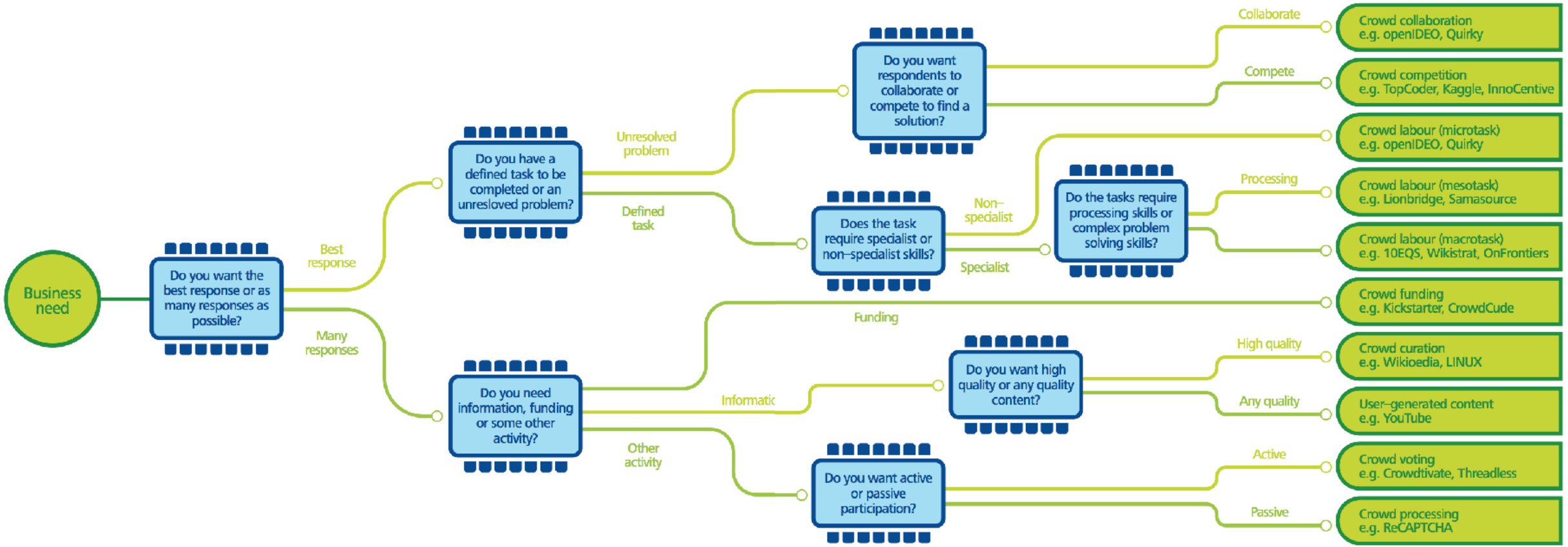



**Figure 1. Four Types of Crowdsourcing Information Systems**

# Classification of crowd enabled platforms



# Blockchain and Crowdsourcing

Blockchain technology addresses efficiently the weaknesses of crowdsourcing systems, this way boosting their attractiveness to solve several problems and widening their application potential. A blockchain database retains the complete, indelible and immutable history of all transactions, assets, and instructions executed since the very first one. With this, blockchain allows participating parties—and only those parties—to share accessible, transparent, and trusted information. The main characteristics to remember are: a) decentralised and distributed ledger storage and integrity, b) the ledger is irreversible and immutable, c) its operation is near real time (i.e. transactions verified and settled in minutes vs. days) and in any case satisfies the speed requirements of crowdsourcing which are significantly looser than those of the financial sector initially targeted by blockchain and d) it respects privacy (no personal data need to be registered). Users are identified by digital identities (exactly as credit cards) and only when physical world personal data are linked to those digital identities, is the linkage in place. Adopting blockchain technology, the ledger of all transactions can be kept in a set of nodes (belonging either to workers or to requesters) obviating the need for a central authority/entity. The node resources are thus contributed by the peers that benefit from the platform and a small reward is granted to them. Such a system is proposed in [11], where a distributed system (entitled CrowdBC) is organised into three layers: the application layer, the blockchain layer and the storage layer. The blockchain layer is where the attributes of a transaction are kept (i.e. the ledger) while the storage layer includes the details and the content of the work produced by the workers. The application layer implements the business logic which, in the considered use case, is the user manager, the task manager and the program compiler. An important element of the CrowdBC is the use of smart contracts which follow the concept of smart contracts defined in Ethereum, [12]. The smart contract [13] is a self-executing digital contract in a secure environment with no intervention, which is verified through network peers. In crowdsourcing systems, a smart contract can be used by the system to describe the request-worker relationship (where the task ID, the task owner, the relevant deposit and task status are kept). With respect to crowdsourcing, targeting information collection for different purposes ranging from facts (as e.g. Waze Carpool), opinions on events, products and solutions to collection of pieces of evidence and verdicts, blockchain makes possible the involvement of a larger number of people, which increases the quality of the data and thus of the offered service. Blockchain has been proposed for judgement produce to increase the quality of justice in [14]. Blockchain technology is also leveraged to improve other crowd-sourcing cases, like crowdfunding. Equity crowdfunding is considered a new channel of raising money for start-ups encouraging innovation and the adoption of blockchain based solutions has important advantages as reported in [5].

http://www.georgeloukas.com/publications/Kogias-IEEEITPRO-2019.pdf

# Case Study: WeMark

## The Distributed Marketplace (Our Solution)

The current system for distributing digital content is broken. Creators get only a fraction of their content's real value and give up many of their rights. Content marketplace are getting more and more dominant, while creators are being left behind. The current system must be replaced.

**Wemark's distributed approach for digital content is based on a few principles:**

- **Creators license their content directly to users**
  They keep **all** the rights to their content, know who licensed it and control its price.

- **Distribution terms and fees/royalties are immutable**
  Content marketplaces get a mandate to distribute content by "signing" a digital distribution contract with creators. This contract will include a price range for licensing the content, the license to be issued to users, and the distribution fee paid to the platform. Once digitally signed, the contract and its terms are immutable and can only be changed with the consent of all parties.

- **Referral programs helps creators and marketplaces reach broader audiences**
  The community will be rewarded for sharing content and growing the number of users and adoption of distributed content marketplaces.

**Our vision is a growing and thriving economy of digital content, powered by a blockchain-based protocol that is aligned with interests of the entire community (creators, customers and marketplaces alike).**

## Wemark's Advantages for Photographers

- **Photographers keep all the rights to their content**

  All licenses are issued directly through the Wemark protocol. Wemark is eligible to distribute the content, but cannot sell or license it without the protocol. The times when creators had to trust marketplace to license their content and report back their earnings are over.

- **Photographers control the pricing of their photos.**

  Wemark will introduce different pricing options and tiers. Content cannot be licensed without the photographer's approval on price and tier.

- **Photographers keep much more of their revenue. No surprises.**

  Wemark sets a new standard with 85% royalty payment to photographers – 5 times higher than the industry average of 15-20%. If we decide to decrease our royalty-rate in the future, it will never affect existing photographers without their consent – their distribution terms are immutable as part of the Wemark protocol.

- **Photographers benefit from higher transparency.**

  Wemark's distributed marketplace approach guarantees, by design, full transparency regarding all payments, licenses and revenue distribution. The protocol will ensure the privacy of customers, while providing a way for photographers to identify copyright infringement, license overuse, use of their photos that should be restricted and other license violations.

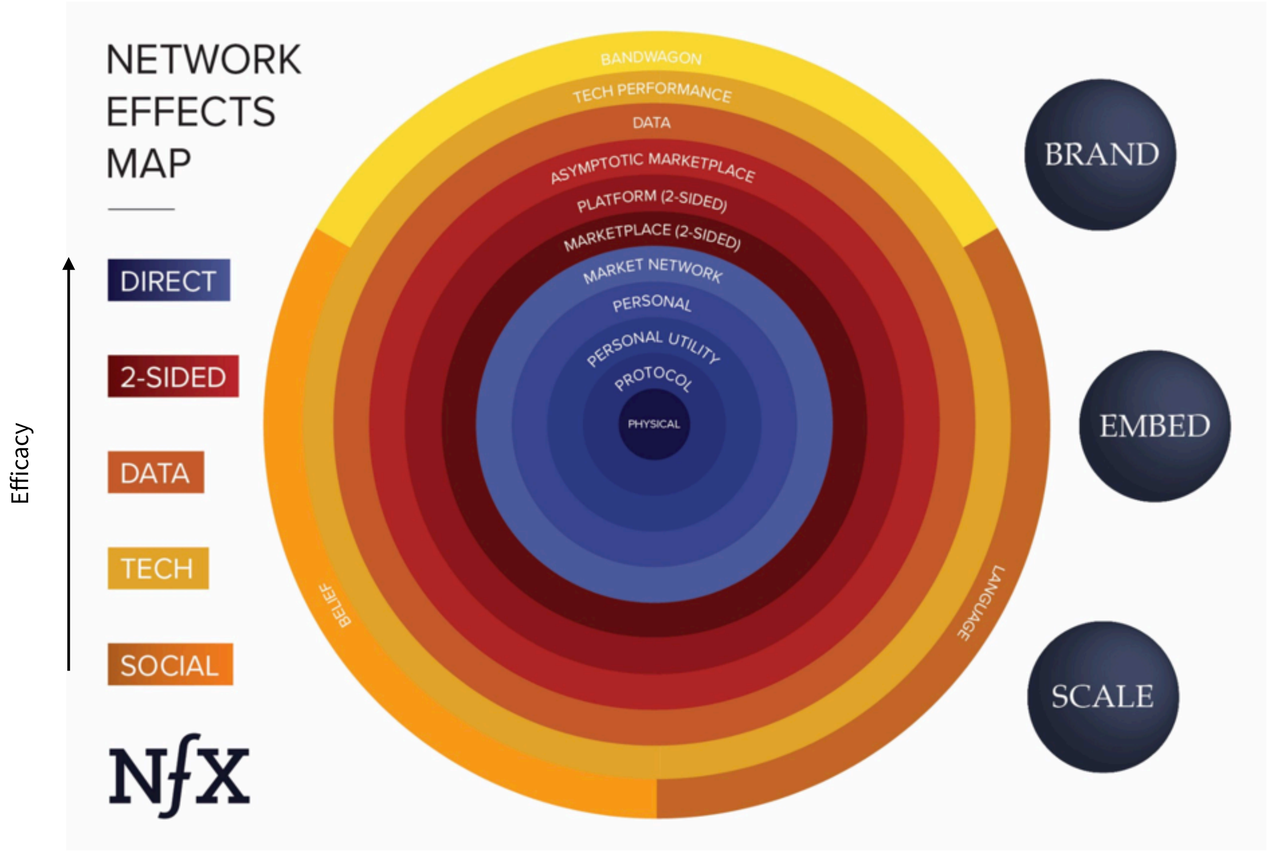
- **Photographers will be able to trust the system.**

  The blockchain-based protocol is immutable and autonomous. No one can manipulate the system – the code that operates it will be public and open-sourced. This creates a new level of trust in digital content distribution - everyone trusts everyone else because the system does not require trust to operate.

# Network Effects

Network effects are mechanisms in a product and business where every new user makes the product/ service/experience more valuable to every other user.

Network effects are important because they are the best form of defensibility, and thus value creation, in the digital world (the three other major defensibilities are brand, embedding, and scale).




https://www.nfx.com/post/network-effects-manual/#physical-direct

# 2 Sided Network Effects

### Properties of 2-Sided Marketplace nfx

- Two sides: buyers and sellers
- The more opposite-side users, the better (direct nfx)
- Same-side nfx actually tend to have negative direct nfx
- The positive from indirect same-side nfx outweighs the negative direct nfx
- Highly defensible, but vulnerable to multi-tenanting

### Examples of 2-Sided Marketplaces

- *eCommerce*: eBay, Alibaba, Amazon Marketplace, Etsy
- *Media*: Wikipedia, Medium, Facebook, Google
- *Matchmaking*: Craigslist, Tinder, Trulia, OpenTable
- *Payment*: Visa, American Express, Discover

### Properties of Asymptotic Marketplace nfx

- Easy to achieve critical mass on the supply side
- Steeply diminishing returns of increased supply early on
- Vulnerable to new entrants
- Susceptible to multi-tenanting

### Examples of Asymptotic Marketplaces

- Uber
- Lyft

### Properties of 2-Sided Platform nfx

- Two sides: users and developers
- Positive indirect nfx, as with marketplaces
- Product and sales method matters more than with online marketplaces
- Multi-tenanting is also a challenge with platforms

### Examples of 2-Sided Platforms

- ***Desktop operating systems***: Microsoft OS, Mac OS, Linux
- ***Mobile operating systems***: Android, iOS
- ***Gaming consoles***: Sony, Nintendo, Xbox
- ***Enterprise***: Salesforce Lightning
- ***Other attempts***: Facebook Platform, Twilio

### Properties of Data nfx

- Data is central to the product value
- More usage needs to produce more useful data gathered
- Typically asymptotes after a certain threshold of data points
- Distinct from scale effects of data (which are also good, but different)

### Examples of Data nfx

- Google
- IMDB
- Waze
- Yelp!
- Amazon

# Social Network Effects

**Properties of Language nfx**

- Direct network effect: the more people who use a term, the more valuable it becomes
- Good defensibility, because at most there's one brand name that people will verbalize.
- If you think about language as having network effects, it has important implications for international markets.
- Anglophone countries will always be easier to penetrate for an English-language company with an English-friendly brand name.

**Examples of Language nfx**

- ***Company names***: Uber, Google, Xerox,
- ***Category names***: Lite Beer, Yahoo! portal, Bitcoin cryptocurrency
- ***Broad language networks***: Language families, individual languages, dialects
- ***Local language networks***: teen slang, company jargon, other niche group terminology

**Properties of Bandwagon nfx**

- A direct network effect: the more people join a movement, the more pressure to not miss out and to be seen as associated with that movement

**Examples of Bandwagon nfx**

- Apple
- Google
- Stripe
- Slack
- LinkedIn
- Github

**Properties of Belief nfx**

- The social consequences of a belief with belief nfx exceed the other consequences of that belief
- Self-reinforcing: the more people believe in the value of something, the more valuable that thing is in reality (for the believers)

**Examples of Belief nfx**

- currencies
- religions
- ideologies

# Network Effects- Intrinsic and extrinsic Rewards

The success of a new crowdsourcing platform relies on the scale of user participation, as well as the contribution from each individual participant.

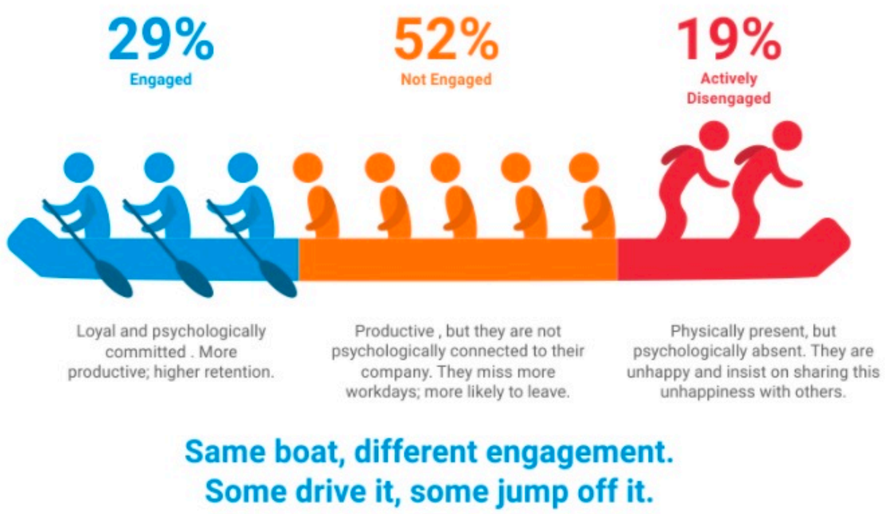
To recruit and maintain a large number of users, the crowdsourcer usually provides users with monetary compensations, referred to as extrinsic rewards. In contrast to such extrinsic rewards offered by the crowdsourcer, a participant often enjoys a reward that is derived from a sense of satisfaction, social status, or honor, and such rewards are inherently intrinsic. Such intrinsic rewards, however, do not typically remain unchanged as the size of participant population grows. When a user's behavior aligns with other users, she will obtain higher intrinsic rewards, usually due to social factors. This is known as the network effects [7].

In the example of Waze, a mobile crowdsourcing platform for sharing traffic information, a driver can get a betterroute if more users join and contribute their local traffic data. It is intuitively conceivable that a growing population of the crowdsourcing platform—with more intrinsic rewards due to networkeffects—would help reduce the amount of extrinsic rewards that a crowdsourcer will need to provide. Considering the network effects, the user participation level will evolve through a dynamic process. At each time stage, users observe the (current) community popularity, estimate the network effects, and decide whether or not to join the crowdsourcing platform. It is quite popular for crowdsourcing systems to publish their statistics on their website or APP. For instance, the Waze project provides a live map for interested visitors that demonstrates the real-time subscriber number and their individual location around a speciffc place. After users take actions, the resulting participation level will trigger user responses in the next time stage. Finally, the network size will reach equilibrium with a stable user participation level

## 2. Rewards & Recognition

EMPLOYEE
RECOGNITION BEST
PRACTICES

| **Rewards** | **Recognition** |
| --- | --- |
| Rewards are tangible. | Recognition is priceless |
| Rewards have economical values | Recognition has emotional value. |




Disengaged Employees have


## What's causing so many employees to become disengaged in the first place?

The answer varies depending on the person, but most disengagement

occurs when employees:

- Feel their work lacks purpose
- Believe they are working in a thankless job
- Are disconnected with a company's mission or values
- Find themselves stuck in the same daily routine with no opportunities for growth.
- Give employees meaningful options

## Trends in employee recognition

Recognition programs are still overwhelmingly common (and they're typically companywide).

- There is a slight shift away from both formal and informal programs to strictly formal programs.

- Length-of-service remains the most commonly utilized recognition program and programs that could lead to higher ROIs (error reduction, safety, waste minimization, etc.) remain relatively rare.

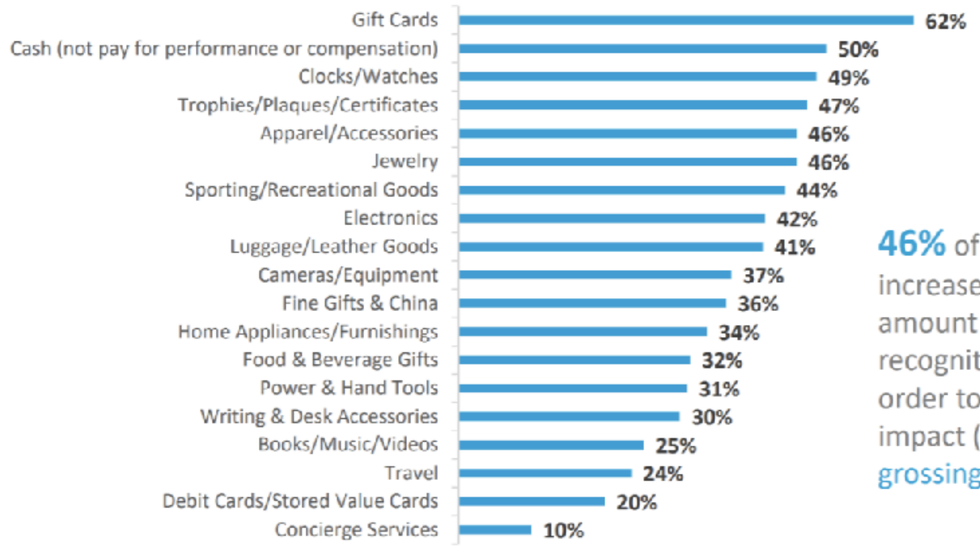
- Nearly all recognition programs measured have been in place for more than five years, meaning there is little movement in this space.

- Organizations tend to measure the success of their recognition programs by usage and employee satisfaction and don't often use external measures to determine success.

- While most respondents feel that their programs are doing a fairly good job of meeting their goals, there is room for improvement.

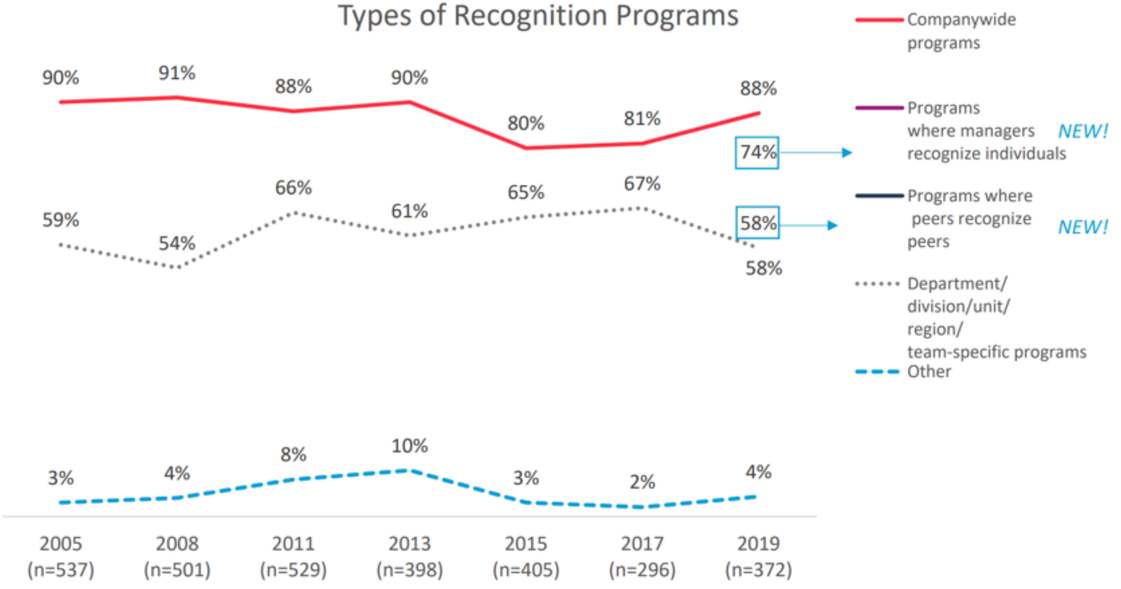
## Types of Rewards Given

(n=302)




**46%** of organizations increase the valued amount of the recognition award in order to offset the tax impact (also known as grossing up the award)

## Types of Recognition Programs

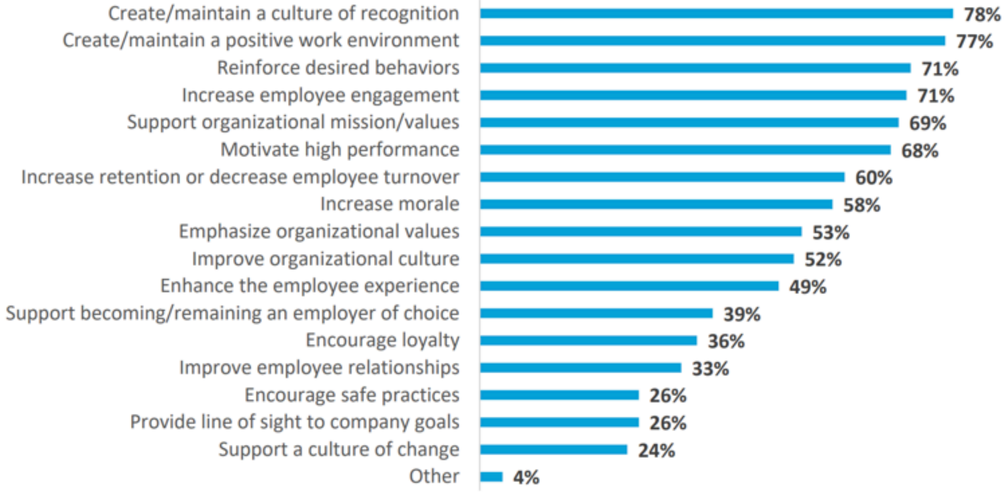






## Recognition Program Objectives

(n=156)



# Steps to strategise a meaningful R& R program

1. Give employees meaningful options
2. Make your program trackable
3. Tie rewards to real-time recognition
4. Incorporate team rewards
5. Let employees reward each other

# Employee Recognition Tips

- Timely
- Easy to access
- Easy to use
- Based on Values
- Exceptional Behaviours
- Incorporate all types
- Accessible to everyone
- Have a result
- Gain insights
- Automatic
- Intrinsic Motivation
- Leadership Buy-in
- Start small, think big


https://blog.vantagecircle.com/rewards-and-recognition-ideas/

## 3. Employee Recognition platforms

PAYPAL
FIDELITY
PERFECTIAL

## 3. Crowdsourcing platforms

TOPCODER
UPWORK

**Topcoder** (formerly TopCoder) is a crowdsourcing company with an open global community of designers, developers, data scientists, and competitive programmers. Topcoder pays community members for their work on the projects and sells community services to corporate, mid-size, and small-business clients.[1][2][3] Topcoder also organizes the annual Topcoder Open tournament and a series of smaller regional events.