

Investigation into the Unusual Signups

Prepared by the OSMF Membership Working Group
26 December 2018¹

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Summary

On 15 November 2018, there was a significant and unusual spike in signups for OpenStreetMap Foundation (OSMF) memberships: ~100 employees of an outsourcing company in India completed membership applications within a few hours, raising concerns about possible attempts to influence the election³.

The board did not pass a circular resolution that would have rejected these signups.

Independently, the Membership Working Group (MWG)⁴, whose duties include the administration of OSMF memberships, undertook an investigation into the circumstances around this matter.

MWG believes it is reasonable to conclude, based on the available evidence:

- The unusual signups are actual members, not fake identities.
- This was an orchestrated, directed campaign by the employer, not an organic response to a public encouraging post.
- The majority of these members did not sign up voluntarily, personally and individually.
- We strongly suspect that the employer paid for these memberships.
- OSMF is fortunate to have detected this campaign.
- We do not know the motivations for this campaign.
- The company is not being truthful to the board or to the public.

These signups raise concerns about possible attempts to influence the board election on 15 Dec 2018, which was only made impossible by the widely publicised but incorrect closing date for eligibility for voting.

¹ Minor correction to the location of Mapbox offices on 2019-01-14

² Primary authors, with extensive help from the wider MWG/OSMF/OSM community

³ 19 votes decided the 2017 election, and 100 votes would have been enough to get any of the 2017 candidates elected. The 2018 numbers were of course not available when the signups happened, but 100 votes would have been enough to pick between two candidates for the second seat.

⁴ https://wiki.osmfoundation.org/wiki/Membership_Working_Group

The authors thank those who have helped us, in particular the Indian community, whose members provided crucial assistance during our investigation.

Background

The OpenStreetMap Foundation is a non-profit “Company limited by guarantee” registered in England and Wales, “supporting, but not controlling, the OpenStreetMap Project”. It is governed by its Articles of Association (AoA), and its members are the ultimate authority. OSMF convenes for a general meeting online once a year, where they elect new members for the board of directors.

Just as the window for eligibility for voting in the 2018 board election was closing, a large group of OSMF membership applications arrived under suspicious circumstances.

This issue was detected by MWG member (and then-board candidate) Guillaume Rischard while analysing member statistics by country. Concerned with this influx, and after having researched it, he raised the issue⁵ to the board on 2018-11-20.

The OSMF Articles of Association give the board seven days to reject a new membership application without cause, and this had been done in 2011 when an influx of employees of Skobbler, a mapping company, was rejected on this basis⁶.

In the Skobbler case, no wrongdoing or impropriety was suspected, but this influx of ~10% of voting members so late in the election cycle was seen as destabilising, so the board accepted the applications as of the day after the Annual General Meeting (i.e., after the election).

In the current case, a board circular that would have rejected these memberships did not pass⁷.

Guillaume contacted the other candidates for the election, and five of the seven co-signed a letter to the board asking for a statement and a full investigation, and pledging to introduce rules to prevent electoral fraud. The board then issued a statement:

Circular Resolution

There had been a mass signup of 100 new accounts on 15.11.2018 from India, most coming from one single IP address from a company "well known" to OpenStreetMap. There had been a larger amount of complaints regarding edits from that company, who provide "mapping services" to other companies. This circular preliminarily rejects all of those applications and tasks [MWG](#) to further investigate them. There's a precedence case for similar action with the Skobbler-case back in 2011.

⁵ Since Guillaume is under MWG NDA, he has access to information such as the full membership register (though which all members can request). Because he was then a board candidate, he raised the issue privately rather than do so publicly.

⁶ <https://lists.openstreetmap.org/pipermail/osmf-talk/2011-August/001139.html>

⁷ <https://wiki.osmfoundation.org/wiki/Board/Minutes/2018-12-20> Ref: “2018/Res12”

The board posted further information on [osmf-talk]⁸:

Those in favour argued that given the circumstances under which the registrations happened, the memberships should be investigated and decided on later. There is no assumption of ill intent.

Those against argued that the original complaint -- the suspicion that these newly created accounts were fabricated with ill intent and required further investigation-- was not supported, and thus did not have a sound legal basis for delaying membership per our current membership requirements.

All Board members are against the creation of artificial OSMF membership accounts.

As a separate but intimately related matter, the board also determined that since the proper cutoff time for voting eligibility was *prior to* 15 November, not *by the end of* 15 November (UTC), these and any other members registering on or after this date are not eligible to vote at the 2018 AGM.

MWG's duties include the administration of OSMF memberships, and in its 2018-11-26 meeting, voted⁹ to conduct an investigation into the circumstances of these new signups.

What was unusual?

It's common¹⁰ to see an increase in OSMF signups in the runup to an election: the window closes a month before the election itself, so an uptick in new enrolments is both expected and welcome.

But the reported influx of members did not match usual patterns of behaviour, and this raised suspicion.

Observations that caught our eye:

- All were Associate members; there's usually a mix of membership types.
- All had @gmail.com addresses; we normally see a mix.
- Almost none provided OSM usernames; this is *very* unusual.
- Many (most?) were associated with the IP address of GlobalLogic, an outsourcing firm in India operating in the OSM/mapping world¹¹.
- All came in at the last minute in a *very* concentrated manner.

This was obviously a coordinated effort, but what kind? A legitimate (and innocent) campaign to encourage real mappers to join and support the Foundation? A fraudulent effort with fake members intended to swing an election? Something else?

⁸ <https://lists.openstreetmap.org/pipermail/osmf-talk/2018-November/005456.html>

⁹ In favor: Steve Friedl, Guillaume Rischard, Michael Spreng; Abstain: Paul Norman

¹⁰ <https://www.openstreetmap.org/user/SunCobalt/diary/47107>

¹¹ GlobalLogic has previously received complaints to DWG when it worked for Apple and Grab.

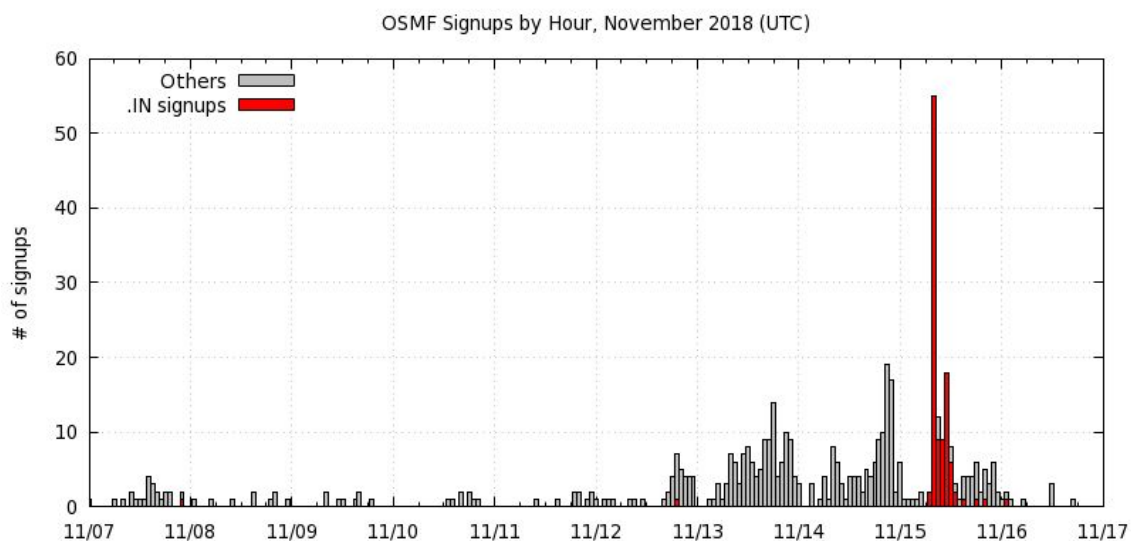
We undertook to find out.

Early technical findings

The first part of our investigation mainly looked for evidence that supported either a coordinated campaign (as we suspected), or an organic grassroots one (which we doubted).

In this report, all times are UTC unless otherwise noted.

Graphing the signup times¹² in hour groups for several days surrounding 15 Nov shows an enormous uptick midday, with 55 in the 10:00 hour UTC, around 2.5 times higher than any other one-hour period in the history of OSMF recordkeeping in CiviCRM.



This is an *enormous* outlier that has no likely explanation other than a coordinated campaign¹³. Coordinated campaigns are not necessarily, or even usually, nefarious.

We determined relatively quickly that these all appeared to be real individuals, rendering the initial concern about possibly fake accounts (thankfully) moot. Nevertheless, the motivations or possible influence by others remained unknown.

At the beginning of this large influx of members¹⁴, a post appeared on the [talk-in] mailing list encouraging OSMF membership, referencing the (incorrect) 15 Nov deadline¹⁵:

Subject: [Talk-in] OSM Foundation Membership
From: **@gmail.com
Date: Thu Nov 15 07:16:00 UTC 2018

¹² From CiviCRM, the membership management system used by the OSMF

¹³ In a graph with a much wider date range, the difference is even more stark.

¹⁴ This post appeared shortly *after* two GlobalLogic managers started the signup that day.

¹⁵ <https://lists.openstreetmap.org/pipermail/talk-in/2018-November/003216.html>

Hi OSM India Community,

This is just a reminder, that the next election for the OSM Foundation board will be on December 15 according to:
https://wiki.openstreetmap.org/wiki/Foundation/AGM18/Election_to_Board
Anyone who wishes to participate in the voting must register as a member of the Foundation by today, November 15 here: <https://join.osmfoundation.org/>

This is certainly an encouraging post¹⁶, but 100 memberships from a mild reminder sent to a regional mailing list make it one of the most effective campaigns in history, and OSMF would do well to attempt to replicate it.

The poster is an employee of GlobalLogic, and given that India is at UTC+05:30, this post appeared at 12:46 local time (around lunchtime).

There was no contact from the company until the board's statement was published to the [osmf-talk] mailing list, so one cannot help but wonder whether this was a company-engineered stealth campaign that was hoping not to get noticed.

After the statement's publication, the company itself confirmed that they were behind the coordinated effort in an email to the [talk-in] mailing list by a GlobalLogic representative:¹⁷

Subject: [Talk-in] Thanking SOTM Asia participants and 100+ Sign up for OSMF
From: **@globallogic.com
Date: Mon Dec 3 06:30:14 UTC 2018

Hello OSM India,

I am writing this post with fresh memories from SOTM Asia which I attended along with 25 members of my team. This was our first time at SOTM Asia & it was such a wonderful experience listening to all the great talks & participating in workshops. We at GlobalLogic are very committed towards building the best map of OSM and have been coordinating & learning from different OSM communities, SOTM's are a great platforms to meet communities. We have always encouraged our team members to participate in OSM community activities and **happy to announce 100+ members from our team got registered voluntarily for OSMF after the encouraging post** and hope many more of you sign up, too.

(emphasis MWG)

A manager at GlobalLogic is claiming that the 15 Nov encouraging post to [talk-in], made by an employee of GlobalLogic, was responsible for ~100 other employees of GlobalLogic choosing to register for the OSMF and pay for it themselves. We understand that the manager also made this claim to the board.

The representative seems to know how many employees signed up.

The author of the original encouraging post and the manager are the only GlobalLogic members who subscribe to [talk-in]¹⁸, at least by any email addresses we are aware of.

¹⁶ The company representative later used the term "encouraging post" for this, so we use it throughout as well, used interchangeably with "call to action".

¹⁷ <https://lists.openstreetmap.org/pipermail/talk-in/2018-December/003225.html>

¹⁸ <https://lists.openstreetmap.org/roster/talk-in>

A number of us noticed the use of the word “voluntary” in the statement, finding it oddly defensive in an otherwise positive statement, but it’s possible this is due to English not being the writer’s first language.

We further noticed that State of the Map Asia¹⁹—which was held 500km from the company’s Hyderabad location—ended on 18 November, but this post was made two weeks later, after the signup had been discussed on the [osmf-talk] list. All of these members registered with OSMF prior to SOTM.

Finally, records show that no members from India have registered for OSMF in the weeks subsequent to the manager’s 3 Dec post, suggesting limited powers of membership appeals on [talk-in].

Who are these members?

A few former Mapbox employees have moved on to GlobalLogic, and are still in touch with former colleagues. Mapbox is a US firm very active in its contribution to OSM, and it formerly operated an OSM data team out of Bangalore²⁰.

61 of the new members have email addresses matching those found in the OSM database, and we expect even more have accounts under other emails (perhaps their company email account).

Most have mapped very little. In the six months before the signup, only 31 have edited at all. Only 7 have more than 10 edits.

One thing about three quarters of the active mappers have in common is humanitarian mapping in HOT activities²¹. 15 have done only HOT mapping, in various activities, mostly in India. 3 have done other things but a majority of HOT mapping, 6 have done a minority of HOT mapping, 7 have mapped but done no HOT mapping at all. HOT and GlobalLogic client Grab collaborate in Indonesia²².

MWG doubts that a cohort of this kind joined the foundation personally and individually based on the call for action claimed.

Instead, because the level of mapping activity does not match what we’d expect from a professional mapping group, we have the impression that these email addresses are associated with secondary or sandbox OSM accounts, not the ones used for their primary OSM activity.

All of the sign-ups happened from Gmail addresses.

¹⁹ <https://stateofthemap.asia>

²⁰ The first version of this report sent to the board on 26 December 2018 incorrectly located the old Mapbox offices in Hyderabad. This was reported and corrected on 14 January 2019.

²¹ HOT (<https://www.hotosm.org/>) is a humanitarian NGO dedicated to mapping. HOT Changesets have “#hot[digits]” in the changeset comments, e.g. #hot4986. See <https://gist.github.com/grischar/d3e947fa8e3ccac1a5c327f920a418b5> for script used..

²² <https://qz.com/1481849/grab-southeast-asias-biggest-ride-hailing-firm-is-on-a-mapping-spree> mentions 100 mappers based in India. In private conversations, one GlobalLogic member has claimed not to be part of or in touch with the Grab team at GlobalLogic.

We understand that many choose to support the foundation in their personal, not their professional capacity, so finding personal email accounts squares with that.

But in our experience, secondary, dedicated or throwaway email addresses often have names indicating such: we did not see this pattern here.

While Gmail is very popular in India, only 71% (189 out of 263) [talk-in] subscribers have a Gmail address. We see a wide diversity of email domains in OSMF memberships. None of the new members signed up with their @globallogic.com email address, including the manager who later used his work email address to post to [talk-in]. Why did they all prefer a generic domain name?

In our opinion, this weighs somewhat into the notion that this was a stealth campaign intended to hide the connections between the members.

A Fortuitous Control Group

We were fortunate during this research to have noticed that a large group of French mappers joined OSMF during November, also in response to unrelated encouraging posts (one from Christine Karch on the [talk-fr] list²³ on 12 November followed by one from Christian Quest²⁴ on the next day), and this gave us an ideal control group for analysing new-member behaviour.

With two cohorts—.FR and .IN—of about the same size (110 and 101 members, respectively), we could compare and contrast the circumstances and behaviours of both groups. What might this tell us?

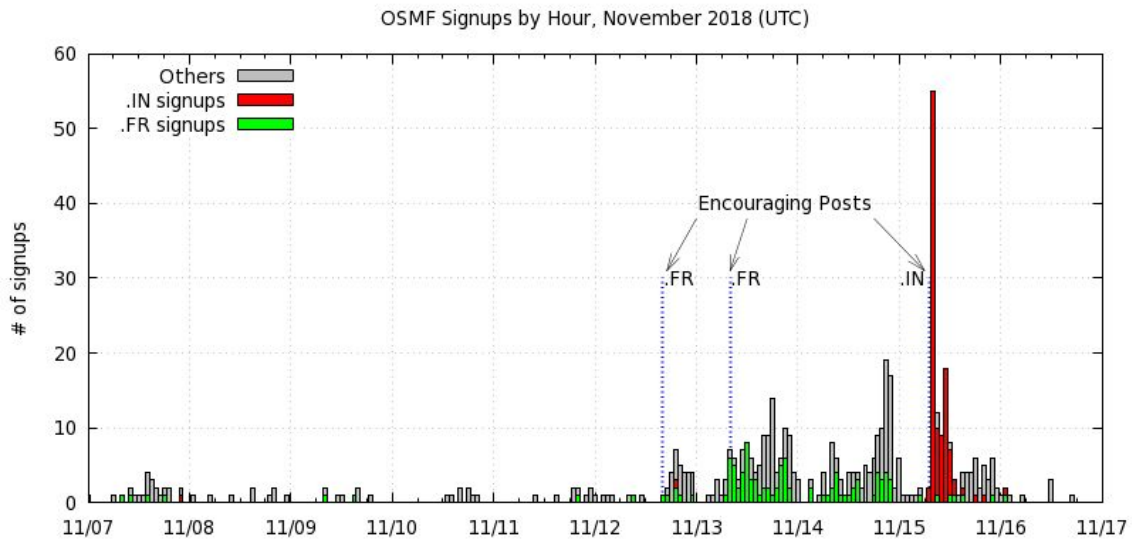
Note that MWG cannot determine which of each group was nominally responding to a campaign: it's entirely possible that some new members from .FR and .IN are unrelated to the others and simply happened to sign up during the time of interest. We note, however, that the GlobalLogic representative has claimed "100+ members" for this campaign, removing all doubt over that day's activities for them.

We unfortunately no longer have web server logs that would have provided more information regarding signups.

²³ [OSM-talk-fr] rappel concernant l'élection de OSMF board
<https://lists.openstreetmap.org/pipermail/talk-fr/2018-November/090979.html>

²⁴ 48h pour ré-équilibrer la gouvernance de la fondation OpenStreetMap
<https://medium.com/@cq94/-906f3f648d27>

Compare: Responses to Encouraging Posts

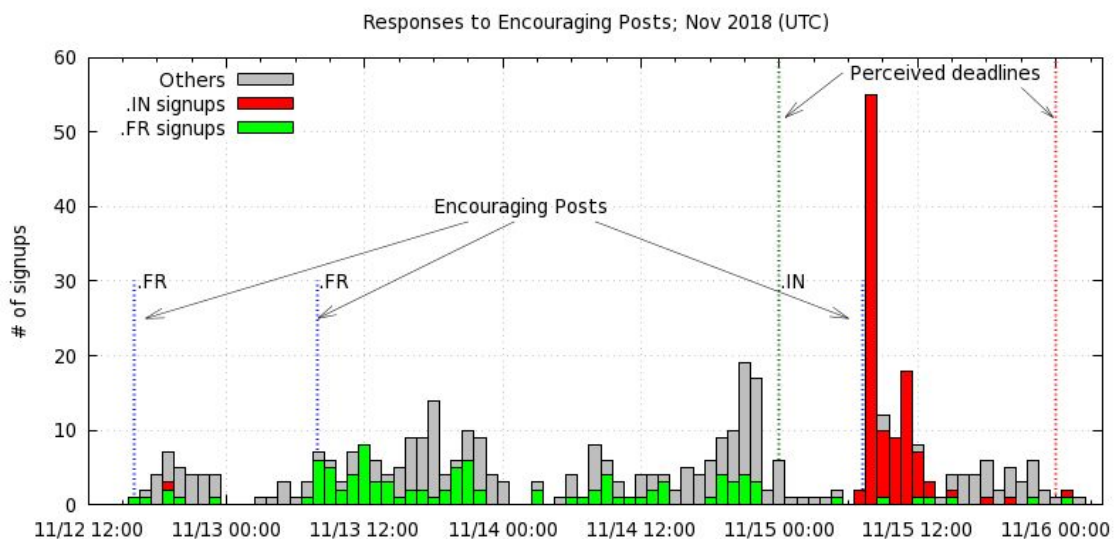


Repeating the previous graph showing signups in mid-November, we separately highlight the .FR signups that were formerly included in the “Other” category, as well as mark the encouraging posts that called the members to action:

We see a more spiked response in the .IN cohort than in the .FR control group. We know that the .FR signups are an organic response to the Encouraging Posts. The .IN group was operating on what it believed was a much tighter deadline, which naturally leads to a compressed response.

The French campaign had understood the cut-off date correctly, and was racing against a 48-hour clock itself.

The above graph represents a wider timeline to emphasize the outlier in comparison to the normal signup baseline, but we can also zoom in a bit to show the responses to the encouraging posts as their campaigns approached their perceived deadlines:



Inspect the graph carefully to see the marker for the encouraging post of the second cohort, as it's so closely followed by an *enormous* number of signups.

This is an unprecedented response to any campaign we have ever heard of.

We understand that the second cohort was facing a tighter signup deadline, but the enormity and immediacy of this response could suggest a *directed* response rather than a *coordinated* one.

Compare: Membership Types

Though there is little practical difference²⁵ in how membership type impacts one's day-to-day mapping (or Foundation membership), we expect to see a mix of Normal and Associate member types. The OSMF, of course, welcomes members of whatever type they choose, the cost to join is the same (£15/year), and no type is "better" than the other from MWG or OSMF's point of view.

We did not see a mix: the .FR group was mostly Normal members with a few Associate members, but the *entire* .IN cohort registered as Associate members:

Group	Normal Members	Associate Members
.IN	<i>0</i>	101
.FR	99	<i>11</i>

A plausible explanation for any skewed ratio is that some call to action linked to a specific signup page for one membership type, rather than the main join.osmfoundation.org page that offers a choice between the two.

Indeed: Christian Quest's post linked to the Normal signup page (intentionally), and those who reposted his message included that same link. For one reason or another, a few .FR members found their way to the Associate Member page to join OSMF.

One might speculate: could some internal post inside GlobalLogic have inadvertently linked to the Associate Member page, thereby drawing heightened attention there?

Perhaps, but this does not square with the company's repeated claim²⁶ that it was the *public post* (possibly passed around internally) that encouraged these signups, a public post that linked to the main OSMF page that offered *both links*.

It is not believable that 101 employees received a call to action by this encouraging post, one that presented both signup options, but who chose only one. *All of them*. We would expect at least one person to become a Normal member, even if only because the Normal member section is first on the page, so this squares far more easily with a data entry team entering a data-entry rhythm.

Another possible explanation is that such a data entry team may have minimised the work to be done: since Normal membership requires entry of a residential house address, signing up as an Associate member without entering the address or OSM nickname requires the least work.

²⁵ See <https://join.osmfoundation.org> for details

²⁶ Once in public on talk-in, once privately to the board.

MWG is confident that it was some other call to action that drove these signups, one the company has not been forthright about.

Compare: Members providing OSM Usernames

When joining the Foundation, the signup form has a field for the Country, which is required, and one for the OSM username, which is optional.

Roughly 80% of active OSMF members have provided their usernames during signup, and though the .FR group's rate of 73% is in line with experience, the .IN cohort's vastly smaller 5% is a substantial outlier.

Group	Signups ²⁷	With OSM Id	% with Id
.IN	101	5	5%
.FR	110	80	73%

Relatively few who are real mappers fail to include their username. It's too much a part of OpenStreetMap for essentially all of the .IN cohort to leave this out so uniformly²⁸. We know by matching email addresses that at least 60% have mapper accounts on openstreetmap.org.

We certainly understand and appreciate that one does not have to be a day-to-day mapper to support the aims of the Foundation, but it is *exceptional* for 96 out of 101 mappers to not provide their username during signup.

A plausible (*but not innocent*) explanation is a data entry team working from a list that simply didn't have the OSM username, or saving time by not entering optional fields.

MWG believes this behaviour is not consistent with each of these .IN members performing the signup process voluntarily, individually and personally.

Compare: Time to Complete the Signup Process

Joining OSMF requires creating the account in CiviCRM by following a link at join.osmfoundation.org, following a payment link to PayPal, then completing the formal signup. The system captures individual activities, each with a timestamp, so we can observe signup behaviour in a per-member timeline.

For a user with an existing PayPal account, with banking information preconfigured, we would expect the signup to take only a minute or two, while another without a

Sign up as Associate Member

New member! * Associate Member - £ 15.00
 Please renew my membership automatically.

OSMF Associate Member Information

First Name *

Last Name *

Open-StreetMap username

Email address *

Country *

Preferred Mail Format

²⁷ Only successful signups were counted.

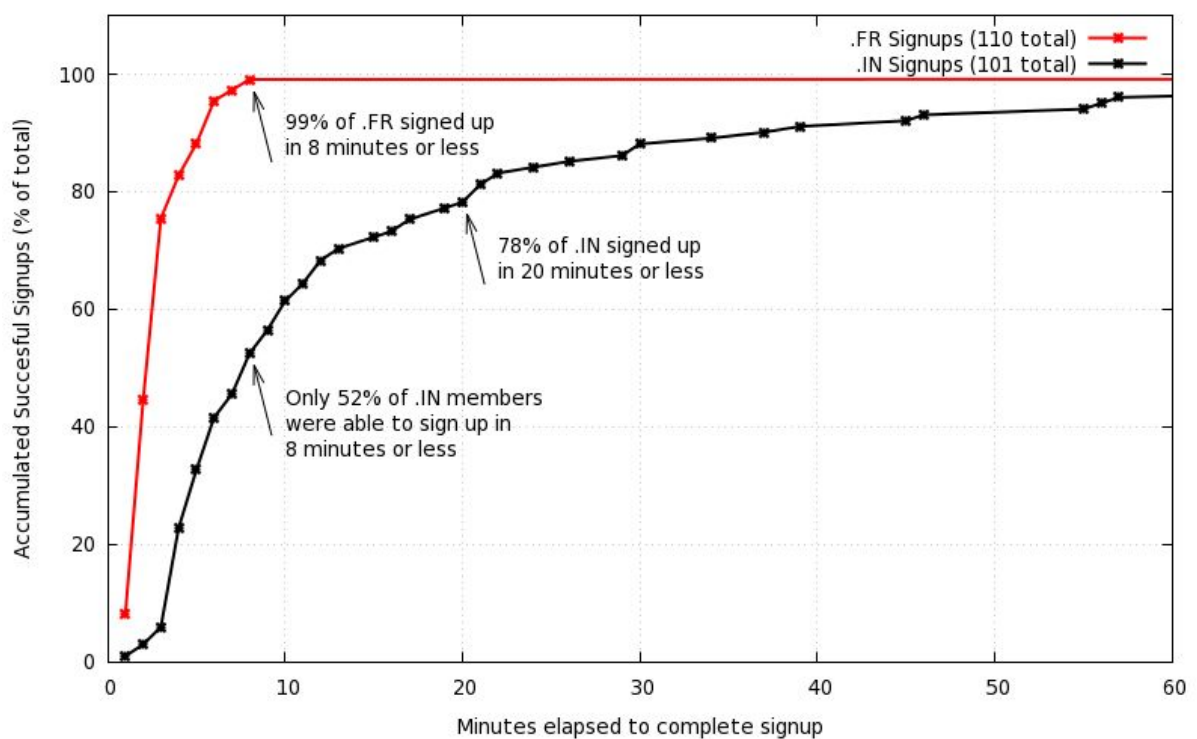
²⁸ We understand that a few members intentionally decline to provide their username for anonymity. We didn't check whether the .FR members who didn't provide an username had OpenStreetMap.org accounts for that email address.

PayPal account requires more time to enter credit card information, a billing address, etc.

In any case, this is essentially the placement of an online order, something most internet users ought to be familiar with, but we saw substantially different behaviour in the two groups.

For every successful signup, we computed the elapsed time of the transaction from start to finish (in minutes), and here we show a graph of what percent of members were able to complete the signup by that amount of time. This is a cumulative graph working up to 100% of members having completed their signup.

In the .FR group, 75% of members completed signup in three minutes or less, and all but one took 8 minutes or less²⁹. We believe this is consistent with normal behaviour: decide to join, then join. This is reflected in the top red graph line.



The .IN group, on the other hand, took much longer to sign up, with long breaks between the individual steps (which will be shown later): by the 8 minutes that all .FR members were able to complete, only a bit more than 50% of the .IN group had done so; this was far more spread out.

Furthermore, the .IN group had far more difficulties with the payment process³⁰, having 45 failed payment attempts and 13 abandoned registrations compared to 6 payment failures and 3 abandoned registrations in the control group.

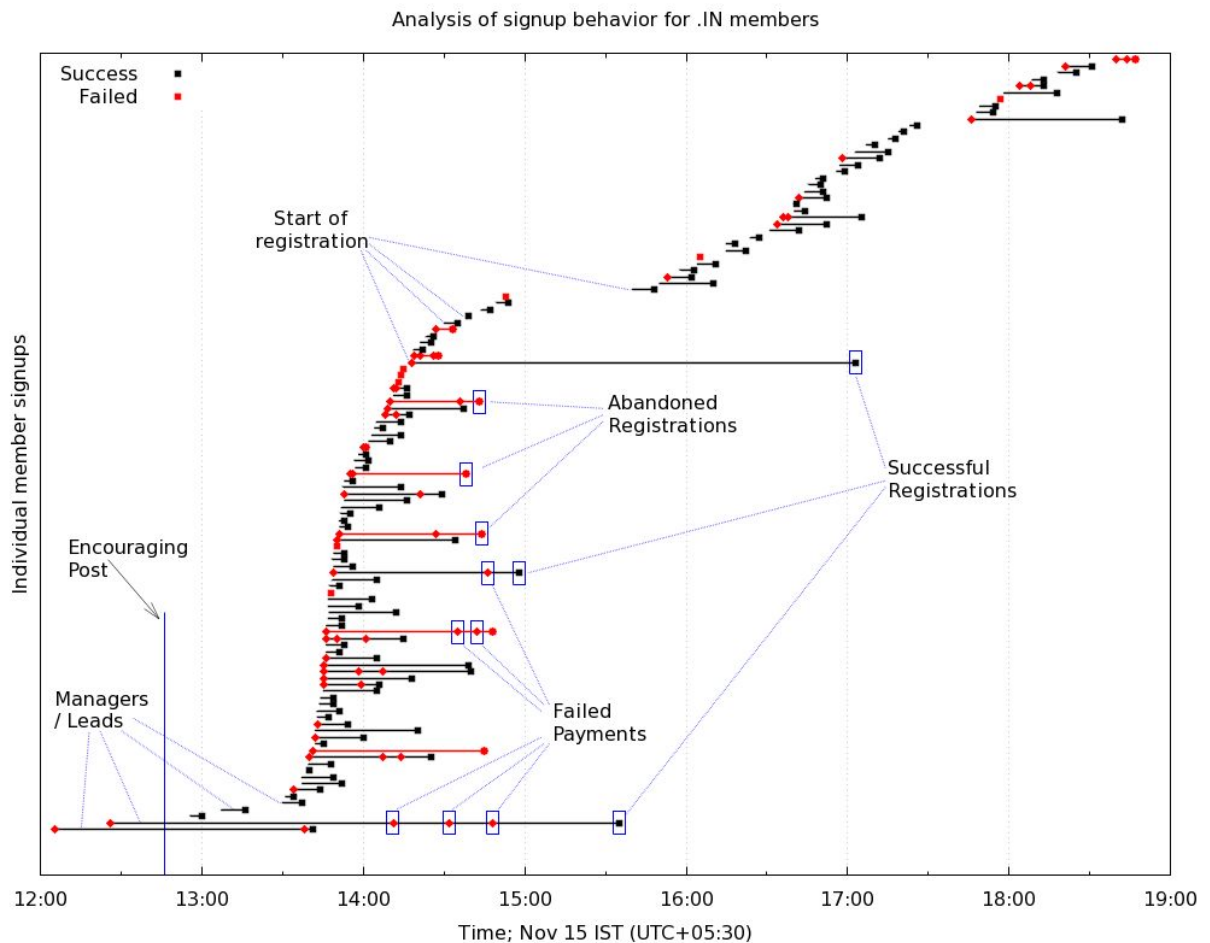
²⁹ A single .FR outlier took 17 hours to complete, with a failed payment right after the start of the process and completing the signup the next day. All of us have run into problems with a credit card, an internet connection, or even a crying child that distracted us from an online order.

³⁰ A new member from India but not with GlobalLogic was able to complete his signup on 15 Nov in two minutes with a single payment attempt.

MWG believes that these timelines are not consistent with each of these .IN members performing the signup process voluntarily, individually and personally, and paying for their own membership.

Detailed Membership Signup Timeline

Expanding on data represented in the previous graph, we can show the fine detail of all steps in the signup process for the events of 15 Nov for the cohort in question; these graphs have much detail³¹ and extensive annotations that require some explanation, but they provide a telling story.



The Managers / Leads have been confirmed by looking at web presence. Other signups could be in manager or lead positions that we haven't identified.

Each horizontal line is a single member signup timeline from start to finish (left to right), and member signup lines are stacked on top of each other to form a progression throughout the day for all in that cohort: higher lines represent different individuals who started later.³²

³¹ We are sorry this graph is so terribly busy. Bear with us, we promise it will make sense.

³² The fact that the first dots of subsequently higher lines form a smooth curve is inherent in the design of the graph, not a pattern from which suspicion should be drawn, though having so many sign up in such a short time may well be.

Lines in black completed the process successfully, while those in red did not ("Abandoned Registrations"), and red diamonds indicate intermediate unsuccessful payments which could have been part of any signup attempt. The stacking represents 118 total member signup attempts, 101 ultimately successful and 17 abandoned.

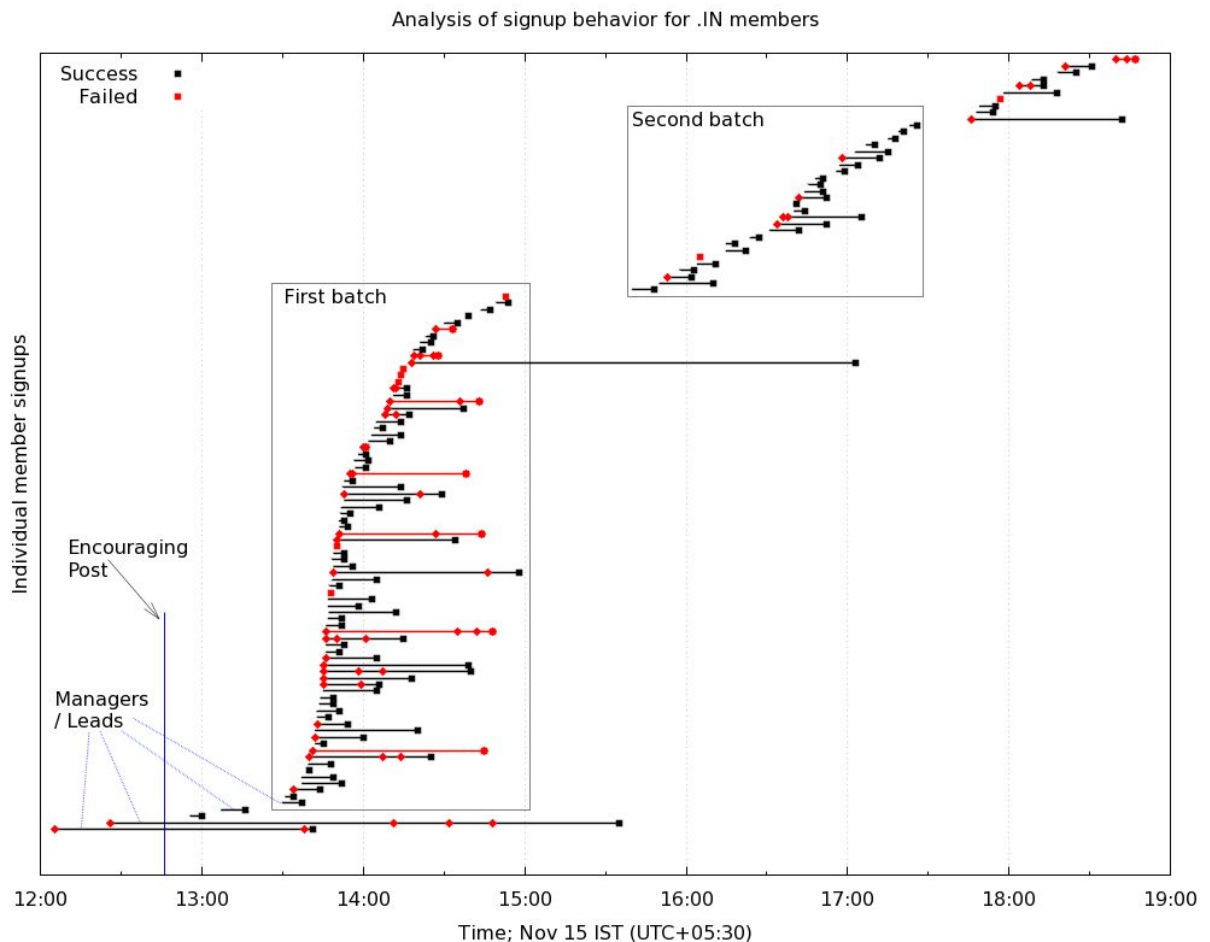
For example, the lowest line shows a failed payment at 12:05 IST, another at 13:38, followed by a successful payment/signup at 13:41.

The next line above it had four failed payments prior to successful signup, and the one just above it completed signup quickly with no failures, finishing right at 13:00.

The first five signups were made by GlobalLogic Managers, Leads or Senior Analysts.

We have already noted the difficulty the .IN cohort had with the payment process, which is illustrated here extensively.³³

The second thing we noticed was that signups were in batches, with the first starting about 13:30 IST and the second about 15:30 IST; this is the same graph but with the batches marked:



³³ We have the corresponding detailed graph for signups from the .FR cohort, but it was so ordinary and had so few anomalies that it did not add anything even remotely useful.

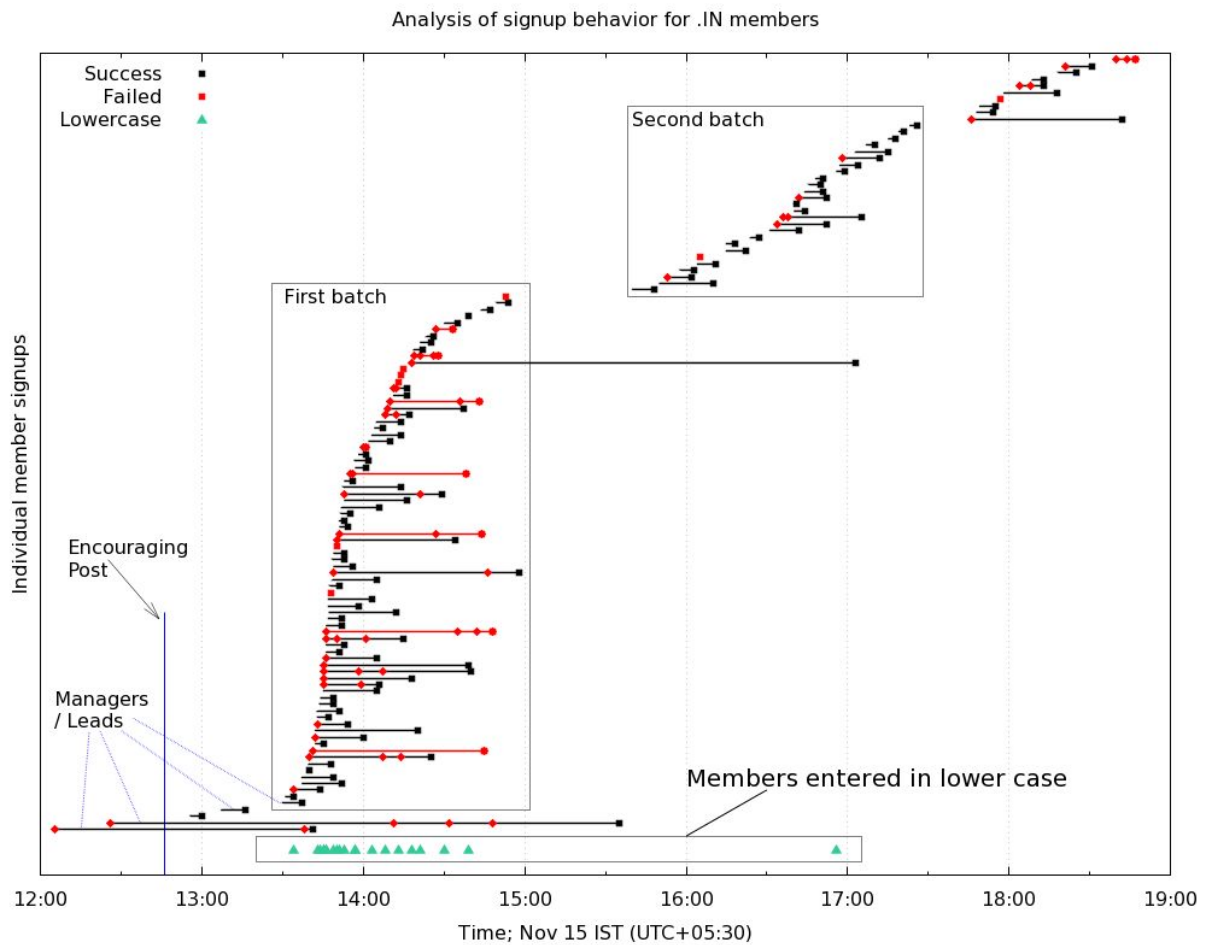
It's possible that these align with the company's schedule that day: an encouraging meeting over the lunch hour promoting OSMF membership, then an unrelated meeting later in the afternoon that kept everybody away from their desks for a time.

But MWG believes it's more likely that we are seeing the effect of a bulk data entry project with a small group entering registrations for a large number.

The Lowercase Factor

When looking at the data³⁴, we noticed an unusually large number of members registering with their person names all in lowercase: **gerardus mercator** rather than the customary **Gerardus Mercator**. By itself this is not uncommon³⁵, but it was far more common than in the control group or in the OSMF community in general.

We did not know if this was reflective of a regional difference or just a coincidence, but overlaying a green triangle marker at the bottom of the graph brought out a clear pattern:



³⁴ For many, many hours.

³⁵ Even one member of MWG styles his name this way.

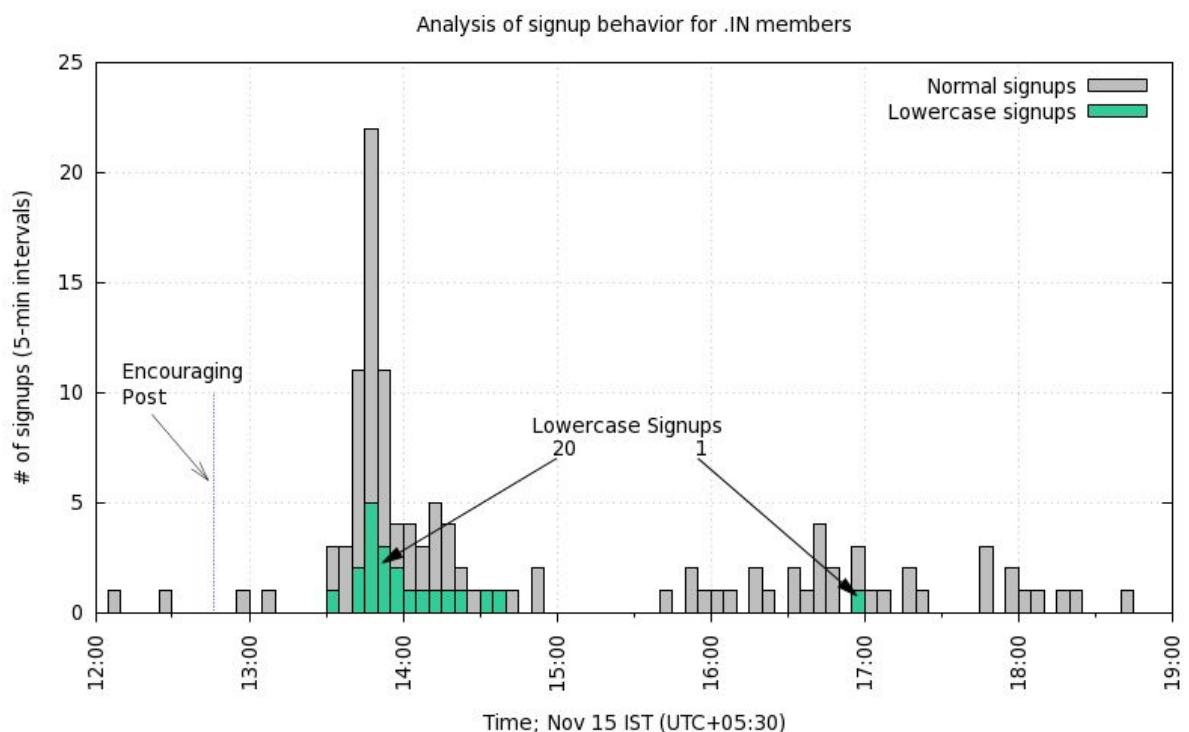
We believe it is not possible that 20 individuals signing up just after lunch happened to be the lower-case type, while only one in the afternoon group is: this is too coincidental.

Important note: this is not reflecting regional/cultural differences: *all of them* are from the .IN cohort, the vast majority *from the same company*. It's almost impossible that this is just a coincidence.

MWG is convinced that this is not consistent with each of these members signing up voluntarily, individually and personally.

The most likely explanation is that one member of the bulk data entry team simply entered names in lower case while working the first batch, but did not return for the second batch.

A far less busy graph of the day's signups is shown here which demonstrates the clear pattern of lowercase person names being entered in the first batch, but not in the second.



This is a subtle but crucial point: the only plausible explanation for this systematic concentration of one uncommon mistake is that this was at least partially one agent's bulk data entry, not a large inrush of individual signups who were working off a script.

Member Outreach

Concurrent with raw data analysis, MWG reached out to members of both groups using CiviCRM mailing tools to send this message to all of the new .IN signups at 2018-12-05 1300 UTC:

Hello [name],

About 100 Indians (including you) became members of the OpenStreetMap Foundation in November, which more than quintupled your number. On behalf of the Membership Working Group, welcome, and congratulations on this remarkable and historic growth!

We are delighted with this success, and would like to collect information to organise membership campaigns in other countries under-represented in the foundation.

What prompted you to act now?

Have you heard of any membership campaigns before?

How could we encourage more new members to provide their OSM username in the form?

Was the choice between normal and associate membership well explained?

Did you find the payment process smooth?

Did you receive the automatic welcome message from the system?

Are there any things that could be improved in our process?

Thank you very much for your comments.

The OpenStreetMap Membership Working Group

Simultaneously, essentially the same message, translated into French³⁶, was sent to the .FR cohort, all with responses going into OSMF's email ticketing system.

The French replies were far more numerous, arrived far more quickly (most within the first 24 hours), and were far more verbose and encouraging. We are thankful for the constructive answers and suggestions we have received from them that will help MWG in its everyday work—this killed two birds with one stone even more than we had hoped³⁷.

MWG received 30 replies:

- 22 from the .FR cohort
- 1 from India but known not to be part of GlobalLogic
- 7 from the .IN cohort probably from GlobalLogic.

The one Indian reply not from GlobalLogic—a mapper for years, and who *did* provide his username—was similarly pleasant and communicative.

But the replies from GlobalLogic members were brief, not too chatty, and raised more questions than they answered:

- All 7 claim the distinction between Associate and Normal membership was clear.

³⁶ MWG has at least one native French speaker (Guillaume)

³⁷ We have other initiatives in mind that involve emailing members in mass

- Several claimed to have had payment problems, which matches our observations.
- Three of the 7 claimed that the JOSM editor’s message-of-the-day on startup prompted them to join
- Not one of the 7 mentioned the [talk-in] post referenced by the GlobalLogic company representative. The Indian mapper not employed by GlobalLogic did.
- In response to the question “How could we encourage more new members to provide their OSM username in the form?”, six of the seven Global Logic respondents suggested that the field should be “mandatory³⁸”, while one did not reply to that question. Only three of the control group mentioned this, each with a lot more detail and discussion, suggesting coached responses to this mailing by the .IN cohort.
- One person claimed that they were “new and recently started editing OSM data”. Their LinkedIn shows that they have been “Manager–OpenStreetMap” at GlobalLogic for 15 months, proudly proclaiming work on OSM, HOT tasks and Missing Maps.

To be fair: the control group received (and replied) in their native language of French, while the .IN cohort transacted in English³⁹. We believe that not using one’s native tongue could reduce chattiness (and possibly even responses in general).

Nevertheless, these responses further muddied the waters about the call to action. The company representative had previously claimed that the [talk-in] post prompted these signups, but none of the 7 respondents mentioned that, *including the company representative himself*.

Furthermore, though it’s certainly possible that any given user could have seen the JOSM startup message as a call to action, it seems suspicious that a message present since 6 Nov would invoke a call to action so closely aligned with all these other nominally independent signups in a last-minute rush.

In addition, the JOSM startup page links to the main site that presents both options: again, *not one* chose Normal as the membership type.

Furthermore, MWG has been told by multiple sources who wish to remain anonymous that GlobalLogic employees were ordered to keep quiet about this matter, which may explain the lack of responses to the survey, as well as the odd commonality of those responses.

Members of the Indian community who thought the signups were suspicious and provided us with crucial information were reluctant to speak on the record, which is understandable: the mapping world is small, and some are afraid that sharing information publicly could cost some of them their jobs and careers.

MWG considers the responses from the investigated cohort to be disingenuous.

³⁸ Five times using the word “mandatory”, using the word “compulsory” for the sixth response received.

³⁹ English is commonly used in India, acting as a bridge between language groups. Higher education is taught in English, and the [talk-in] mailing list and the India OSM Telegram group are conducted in English. GlobalLogic advertises jobs in Hyderabad in English, and requires applicants to pass a written test with questions and answers in English.

Conclusions

MWG has put *hundreds of hours* into this investigation over the past several weeks attempting to determine what happened, and going where the evidence took us.

These conclusions are our best collective judgement based on the entirety of the evidence. We actively looked for alternate explanations, including innocent or exculpatory ones, and abandoned some lines of inquiry where conclusions could not be supported by more than mere speculation.

A few of these conclusions were informed in part by off-the-record tip-offs and leads, though we have given them limited probative value (especially where a source might have an ax to grind), and in no case was any conclusion reached entirely, or even mostly, based on information whose source we cannot name.

Though one author (Guillaume) was at the time a candidate for the board, most of this investigation happened after these members had been declared ineligible to vote, rendering the impact on the 2018 election moot.

None of the primary authors has any conflicts of interest regarding the subject of this report.

Expanding on the conclusions noted in the summary:

These are actual members, not fake identities

It was initially questioned to the board whether these signups, which appeared at the last minute, might have been invented identities intended to influence an election. It did not take MWG long to determine that this was simply not the case; all of these were consistent with real identities.

Orchestrated, Directed Campaign by the Employer

We have seen in the control group what an organic response to a campaign looks like, and it seems unbelievable that this encouraging post to the [talk-in] group or the JOSM startup message prompted this strong of a response in that short a time window.

Though one can easily imagine somebody forwarding the [talk-in] post to an internal staff@ email list inviting colleagues to join the Foundation, even with a personal encouragement, the response is far beyond what any voluntary membership campaign has seen in the history of OSMF.

MWG believes that the company *directed* the majority of these memberships.

Members did not sign up voluntarily, individually and personally

One can imagine a company directing its staff to join OSMF, and staff following that direction with individual and personal (*but perhaps not voluntary*) signups, but we do not believe that's what happened here.

We emphasise that for any bulk registration and payment process, there must be a workflow, but we have not managed to fully reverse engineer it (having very little inside information on it).

MWG believes that the consistent lack of OSM usernames, the unanimous selection of Associate membership, plus the curious lowercase name pattern, mean that memberships were largely done centrally by a small team, perhaps with a list of gmail addresses in hand.

By choosing Associate membership, which requires less information, the data entry process was faster, and because the department directory didn't include OSM names, they were not included (it apparently didn't occur to anybody that this was suspicious).

An alternate explanation for the lack of OSM usernames is that they were intentionally omitted to avoid linking these members together to their employer. We don't know, but that would weigh into the disingenuity of the campaign.

Though we believe that some of the payment difficulties were genuine, many others can be explained by a rush to sign up a lot of employees in a short time with an unfamiliar workflow.

We strongly suspect that the employer paid for these memberships

We investigated whether these memberships had been directly paid by the employer. Although there are numerous cases where one person has paid for 3–4 others, enough of the members paid for themselves, at least as far as PayPal tells us, that we cannot claim an obvious common paymaster.

MWG can only publish circumstantial evidence that the employer will reimburse employees, but we have been told privately by more than one person that this will happen.

We are sceptical that these employees, responding to another employee's encouragement to join OSMF, were expected to pay the £15 fee out of their own pocket. £15 represents a significant portion of even a highly paid employee's income in Hyderabad⁴⁰.

We understand that a company paying for memberships is not against the rules of OSMF, and some do it openly, but doing so in a clandestine manner makes it a question of candour and transparency rather than of finance, especially right around an election.

OSMF is fortunate to have detected this campaign

The only reason this was detected is that the company was sloppy about it: by rushing memberships at the very last minute, the enormous inrush of 100 members strongly outnumbering the number of average daily active mappers, it invited attention.

⁴⁰ Glassdoor shows salaries at GlobalLogic starting at ₹1,38L/y, or about £130/month. According to private conversations, senior experts earn up to ₹7,2L/y, about £675/month.

None of these employees included their company email addresses, nor their OSM usernames, the lack of both making it much more difficult to link them as a group acting in concert.

Had this campaign been done more quietly, starting farther in advance (and ahead of the deadline), it's possible this might have gone unnoticed except for whatever impact it had on the election.

We do not know the motivations for this campaign

MWG is convinced that this campaign was directed by the employer, but we do not know why.

Some might speculate that it was merely an innocent but clumsy effort to support the Foundation⁴¹.

We understand from various sources that the company privately raised the issue of being allowed to vote with the board *several times*. The issue was also raised privately by GlobalLogic employees in conversations with MWG. Anecdotally, this has barely, if at all, come up in casual personal conversations with friends who were also cut off.

One cannot help but reach the conclusion that this has something to do with the election, and wonder whether these new members might have received direction on *voting* in addition to direction on *membership*.

To date, we have not uncovered any evidence, even whispers, of what anybody might have had in mind with respect to board candidates. Employees themselves might not know either⁴².

The company is not being truthful

The company has claimed to the public and to the board that this was a voluntary response to a public email post, but this can hardly be reconciled with our findings: the company statements do not appear truthful.

These raise serious questions about whether a player in the mapping community is being sincere about their actions and intentions, and whether this is consistent with good governance of the OSMF.

MWG has not officially contacted the company about these matters, believing it to be the responsibility of the OSMF Board.

As we concluded that these last-minute signups were coordinated and that the company is not being truthful, and because it insisted on voting several times, we think that the signups were not innocent.

⁴¹ Corporate memberships are available for that.

⁴² It would have been possible to reveal the next step ("election instructions") to employees once the election was actually under way some weeks later.

Recommendations

We hope that the community reacts by joining the OSMF, and encouraging other mappers to join, increasing our membership numbers. A wide and diverse participation of mappers engaged in the OSMF's mission makes us less vulnerable to voting blocs of any kind.

MWG understands that remedies for nefarious behaviour are limited, and believes that any actions against GlobalLogic or its employees and clients are up to the board and the wider community. These new members were not eligible to vote in the 2018 AGM, and unless they renew again next year, probably won't be able to vote in December 2019.

But we do believe this raises concerns that many OSMF members share: can an election be improperly influenced by a stealth campaign? What would stop a company from an *overt* campaign?

MWG believes that transparency is the ultimate antidote to most governance issues.

Accordingly, we have discussed some ideas for increasing transparency and avoiding surprises: we are raising them for discussion, not proposing them for adoption. MWG is not the appropriate body to decide some of these things, and a few proposals would require changes to the OSMF's Articles of Association.

- Requiring affirmative email confirmation of new memberships would make it more difficult for some other nefarious campaign to enlist its workers without their active participation.
- Enable entry of industry affiliation ("Company") during registration⁴³ and include it in existing active-member-list exports. Even if the field is not mandatory, it would allow others to judge the level of transparency and candour during any future campaign such as this.
- Enact a new policy that OSMF will post a list of who-voted after each election, allowing the membership to decide for themselves if a company operates a voting bloc (votes themselves would always remain fully secret).
- Clarify a long time ahead of the next AGM when the exact and proper cut-off date and time will be.
- Request/require that companies who pay OSMF registrations for their employees disclose this in some place ([osmf-talk]? membership@? board@? checkbox on registration?)

This would be difficult to enforce other than discovering violations after the fact, but the requirement itself and threat of enforcement (or bad PR) might be enough to discourage bad actors.

- Enable a checkbox in registration so the user *either* enters the OSM username *or* checks a "[X] Decline to state" box—requiring one or the other makes it an affirmative choice.
- Verify OSM usernames when they are entered

⁴³ CiviCRM appears to support this field already, though we have not researched the details.

- Allow only verified active mappers to vote and run for the board
- Explicitly forbid vote recommendations by employers, vote coercion, vote buying, turnout buying and/or voter impersonation.
- Ask the Operations Working Group (OWG) to consider longer logfile retention for the CiviCRM webserver handling OSMF membership tasks, including new signups; we believe the current retention is two weeks.
- We recommend the board reach out to GlobalLogic to establish a dialog, clarify intentions, and establish a plan to increase transparency of their activities in the OSM world, perhaps through corporate membership.