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## LIFT07

# **Network Mapping of the LIFT07 Conference**

January 2008

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#### **Executive Summary**

This report is an overview of a network mapping study based on a sample of 28 attendees of the LIFT07 conference. Held in February 2007 in Geneva, Switzerland, LIFT07 was attended by some 450 people. The aim of this study was to provide an insight into what networks existed amongst attendees and what networks were created during the LIFT07 conference.

The mapping of the networks of the 28 participants indicated that a considerable network existed before the conference – reaching some 30% of all attendees. This network was increased significantly at LIFT07: in the sample studied, 6% of the attendees extended the total of their networks to include 50% of all attendees.

This study also indicates that attendees were able to at least double their networks at LIFT07. In other words, if an attendee knew five attendees before attending the conference, they would meet on average another five attendees at LIFT07 – thus extending their network to 10 people.

The study was able to identify some particularities of the networks of LIFT07; several participants were able to increase their networks significantly; key relays between participants were identified and networks that developed in isolation to the overall network ("cliques") were evident.

The report concludes with a series of profiles on the "star", "booster" and "clique" networkers who developed networks distinct from other participants.



# **Table of Contents**

1.	Introduction	
2.	Before and after network maps	4
3.	Main Findings	6
	Networks of participants	
	Networks between participants	
	The "star" networker	
7.	The "booster" networker	
8.	The "clique" networker	12
Anr	nex One: Network mapping methodology	13
Anr	nex Two: Information on report author	



#### 1. Introduction

This report is an overview of a network mapping study of a sample of LIFT07 attendees. The aim of this study is to provide an insight into what networks existed amongst attendees and what networks were created during the LIFT07 conference. Held in February 2007 in Geneva, Switzerland, LIFT07 was attended by some 450 people interested in emerging technologies and communications.

A sample of 28 LIFT07 attendees (referred to hereafter as "28 participants") completed a survey indicating simply which attendees they knew before the conference and which attendees they met during the conference. This information was then collated and a series of network maps were created to illustrate the contacts between attendees before and after LIFT07.

The limitations of this study needs to be understood before considering the findings: This study maps networks from the point of view of the 28 participants. Consequently, it is only a partial map of the networks established at LIFT07. Nevertheless, a number of interesting conclusions can be drawn from this sample.

Annex one provides further information on the methodology of this network mapping. Information about the author of this report is found in annex two.

## 2. Before and after network maps

The visual representation of the networks established by the 28 participants before and after LIFT07 are displayed in diagram one. To understand this diagram, the following should be noted:

- Each dot (or node) represents one person;
- Blue dots are the 28 participants that participated in the study;
- Each of the 28 participants is given a title and number e.g. "Lifter07";
- Red dots are attendees known to one or more of the 28 participants before attending the conference:
- Yellow dots are attendees that were known by one or more of the 28 participants after attending the conference<sup>1</sup>;
- The lines between the dots represent a relationship between the given people;
- The length of the lines has no significance;
- The arrows represent who identified the relationship (i.e. "I know her" the arrow points from the identifier to the identified);
- The placement of the dots has an approximate significance in general those on the outer rim of the network are the less connected.

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<sup>&</sup>lt;sup>1</sup> In addition, a number of the 28 participants (blue nodes) established contact with attendees (red nodes) during the conference that were already part of another participant's network prior to the conference.

Lifter24 ● Lifter08

**After** 

**Before** 

Diagram one: Maps of 28 participants and their networks before and after LIFT07

## 3. Main Findings

The mapping of the networks of the 28 participants before and after LIFT07 leads to several broad conclusions about networking and LIFT:

Attendees were able to **extend their networks** significantly at LIFT07: 6% of attendees (the 28 participants) extended the total of their networks to include 50% of all attendees (224 attendees from a total of 450).

Attendees were able to at least **double their networks** at LIFT07: for example, if an attendee knew five attendees before attending LIFT, they would meet on average another five attendees at LIFT07 – thus extending their network to 10 people.

The limited sample of 28 participants was able to illustrate some **particularities of the networks** of LIFT07 – the identification of a "star" networker, the growth of networks through attending the conference and networks that developed in isolation to the overall network ("cliques").

These broad conclusions are explained further below:

- The 28 participants had a significant network amongst fellow attendees before the conference – they were connected to a total of 137 attended. Thus the network of these 28 participants included some 30% of all conference attendees. This is also an indication that the participants were strong networkers prior to LIFT07.
- The 28 participants added 87 additional attendees to their network of whom they met during the conference, extending the reach of their network to some 50% of all conference attendees (224 attendees).
- The number of links (lines) between attendees doubled after the conference before the conference there were 187 links between attendees – after the conference there were 409 links.
- Before the conference, participant Lifter20 had the largest network (59 attendees) which was increased by 25 attendees after the conference.
- Before the conference, three of the 28 participants (Lifters 03, 08 & 24) had no network with attendees. All built a network of between 4 – 10 people during the conference.
- Before the conference, several "red" attendees (i.e. those attendees nominated as part of the network of the 28 participants) were significant relay nodes in the network receiving considerable incoming links – notably the red node to the right of Lifter 12 and the red node to the left of Lifter 16. In both cases, the number of links to these nodes increased after the conference.
- After the conference, three of the 28 participants increased proportionally their networks significantly, notably Lifters 18 (4 before – 28 after), 19 (0 before – 12 after) & 24 (0 before – 10 after).



- Two of the 28 participants (Lifters 11 and 15) had isolated networks before the conference – the members of their networks were not known by any other of the 28 participants. During the conference they were able to both extend their networks although their networks remained more isolated than the networks of other participants.
- The majority of red and yellow nodes are only linked to one of the blue nodes (the 28 participants). This is a result of the limited nature of this study. In reality, there are certainly more connections between the red and yellow nodes. However, this study only maps the connections of the blue nodes and there was no way of determining the connections between the red and yellow nodes.

These points are discussed further in the following chapters.

#### 4. Networks of participants

Table one details the networks of the 28 participants before and after LIFT07 with additional information on the number of links established, averages and ratios.

There was a large range in the size of the individual networks before LIFT07 (from 0 to 59) and a smaller range in the number of people added to networks after the conference (from 0 to 28). However, on average, participants had seven people in their network before LIFT07 and added nine more people after the conference – leading to the conclusion that people at least doubled their network by attending LIFT07.

Examining the ratio of each individual network before and after LIFT07 provides an interesting comparison. For example, the "star" networker, Lifter20 has a ratio of 1:0.4. In other words, for every third person in her existing network, she met one new person. Whereas, Lifter18 had the highest ratio of 1:7. In other words, for every person in her existing network, she met seven new people. Considering the averages of all ratios (1:1.3) confirms the above conclusion: knowing one attendee before LIFT07 would lead you to meeting at least one more attendee during the conference – and consequently doubling your network.



	Network		Total	
Participant	Before	After	network	Ratio
Lifter01	2	0	2	1:0
Lifter02	6	2	8	1:0.3
Lifter03	0	4	4	0:4
Lifter04	6	11	17	1:1.8
Lifter05	8	3	11	1:0.4
Lifter06	10	3	13	1:0.3
Lifter07	3	2	5	1.0.6
Lifter08	0	3	3	0:3
Lifter09	3	7	10	1:2.3
Lifter10	6	14	20	1:2.3
Lifter11	4	18	22	1:4.5
Lifter12	11	5	16	1:0.4
Lifter13	14	7	21	1:0.5
Lifter14	16	2	18	1.0.1
Lifter15	2	6	8	1:3
Lifter16	6	11	17	1:1.8
Lifter17	13	4	17	1.0.3
Lifter18	4	28	32	1:7
Lifter19	0	12	12	0:12
Lifter20	59	25	84	1:0.4
Lifter21	8	22	30	1:2.7
Lifter22	4	8	12	1:2
Lifter23	2	7	9	1:3.5
Lifter24	0	10	10	0:10
Lifter25	4	10	14	1:2.5
Lifter26	5	20	25	1:4
Lifter27	3	7	10	1:2.3
Lifter28	7	5	12	1:0.7
Total:	206	256	462 <sup>2</sup>	
Average:	7	9		
Ratio (average):	1	1.3		
Total links:	187	222		
Links ratio (average):	1	1.2		

Table one: Networks of 28 participants, average and ratios

<sup>&</sup>lt;sup>2</sup> Astute readers may notice that this total, 462, is much larger than the total number of people mapped in the network, 224, as mentioned in chapter 3. This is because the total of 462 includes people counted twice or more. For example, Lifter27 has 10 people in her network; these may be some of the same people found in the 12 of the network of Lifter28.



### 5. Networks between participants

Diagram two illustrates the network between the 28 participants of the study excluding all other attendees of LIFT07, before and after the conference. These maps illustrate several points of interest in the networks of the participants:

- The number of links (lines) between participants doubles after the conference as seen in the overall trend of the networks.
- Although extending their networks to other attendees (red nodes), three participants remain isolated after the conference from the other participants of the study; Lifters 03, 10 & 22.
- The "star" networker, Lifter 20 had seven links to other participants before LIFT07 which grew to ten after the conference, giving her the most central position in the network of participants.
- The network of Lifter 18 had two links to other participants before LIFT07 which grew to seven after the conference with five participants linking to her indicating an ability to network at LIFT07.

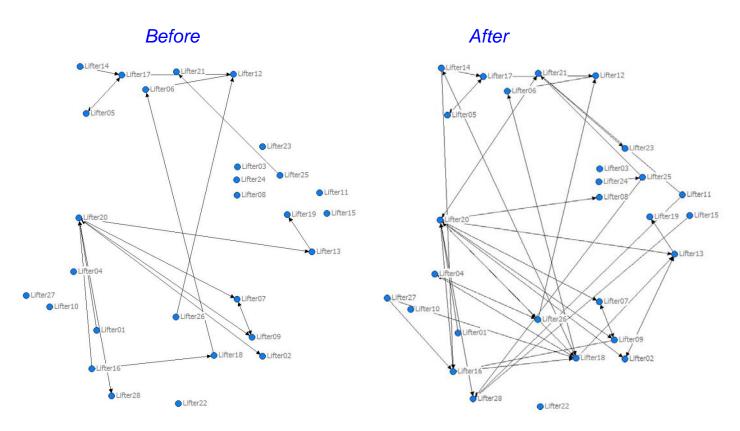


Diagram two: Network maps of 28 participants before and after LIFT07



#### 6. The "star" networker

Diagram three illustrates the network of the "star" networker, Lifter20, before and after the conference. Lifter20 knew a large number of attendees prior to LIFT07 and was able to grow her network by some 30% from 59 to 84 people. Interestingly, many of the people that she connected to, both before and after LIFT07, were not part of the networks of the other 27 participants of the study, indicating a certain isolation of parts of her network. Further points of interest of the network of Lifter20 are as follows:

- Before the conference, a significant number of contacts (35) of Lifter20 had no connections with any of the other 27 participants of the study.
- After the conference, a number of contacts (14) made by Lifter20 had no connections with any of the other 27 participants of the study.
- Lifter20 shares a number of contacts with one other participant (Lifter13 the blue node horizontally to the right in the "after" diagram).

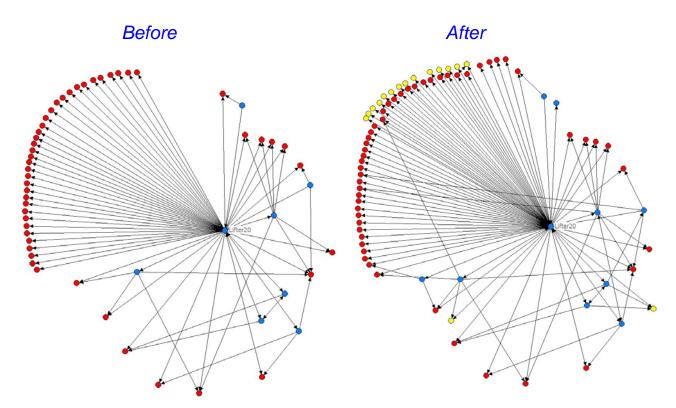


Diagram three: Network maps of Lifter20 before and after LIFT07



#### 7. The "booster" networker

Diagram four illustrates the network of the "booster" networker, Lifter18, before and after the conference. Lifter18 knew four people that were attending LIFT07, in addition to one person who knew her although the recognition was not reciprocal. Lifter18 was able to grow her network impressively – from four to 28 attendees. In addition many of her contacts were linked to other participants indicating a larger extended network. Further points of interest of the network of Lifter18 are as follows:

- Lifter18 shared many contacts with the other 27 participants of the study (blue nodes).
- Six of the contacts established during LIFT07 were isolated and not connected to the other 27 participants.
- Lifter 18 was known by six of the other 27 participants after the conference (incoming arrows).

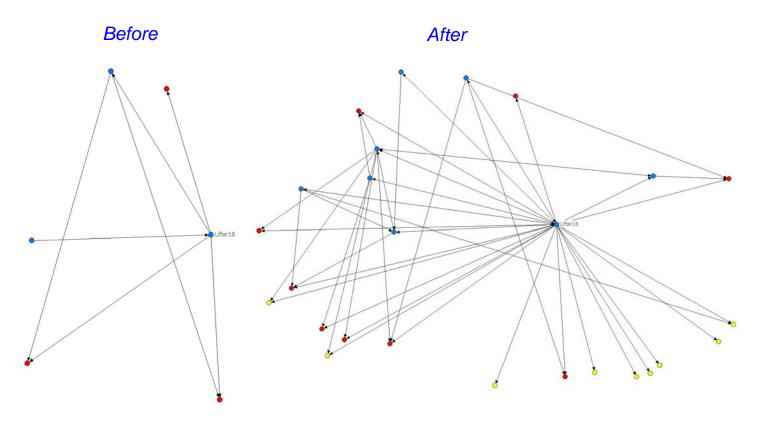


Diagram four: Network maps of Lifter18 before and after LIFT07



## 8. The "clique" networker

Diagram five illustrates the network of the "clique" networker, Lifter11, before and after the conference. Before LIFT07, Lifter11 knew four attendees that were isolated from the 27 other participants, thus creating a networking "clique". Lifter11 was able to grow his network to 18 people which meant that for every person in his network he was able to meet at least four new people (ratio of 1:4.5). However, the majority of his network remained isolated from the other 27 participants, reinforcing a network "clique". Further points of interest of the network of Lifter11 are as follows:

- Lifter11 shared only five contacts with the other 27 participants after the conference.
- Lifter11 had no incoming links from the other 27 participants.
- Half of the new contacts made by Lifter11 had no connections with the other 27 participants.

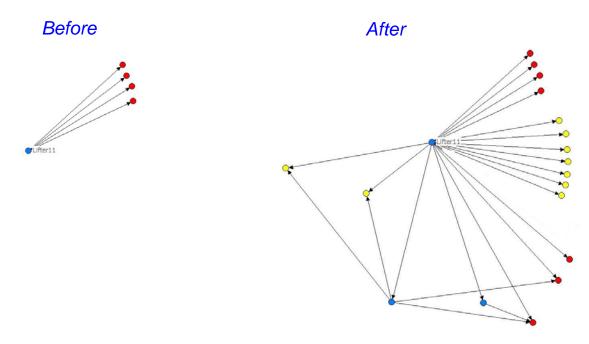


Diagram five: Network maps of Lifter11 before and after LIFT07



### Annex One: Network mapping methodology

The aim of this study was to provide an insight into what networks existed amongst attendees and what networks were created during the LIFT07 conference.

Through the conference website, volunteers were asked to participate in the study – consequently 28 attendees of LIFT07 completed an online survey where they were asked to write down the attendees they knew before the conference and the attendees that they met during the conference.

This information was then extracted from the survey software. The names of the attendees were cross-checked against the conference attendees' list and some 10% of names had to be eliminated due to the inability to locate the persons on the list (evidently not all of the 28 attendees were able to recall the full names of people they met making some matching difficult and not possible in some cases).

This information was then inputted into the network mapping software and the appropriate network maps were created. The images in this report were generated by the network mapping software.

Two software applications were used to undertake this project:

- Online survey software: Benchpoint surveys (<u>www.benchpoint.com</u>)
- Network mapping software: Borgatti, S.P., Everett, M.G. and Freeman, L.C. 2002.
  Ucinet for Windows: Software for Social Network Analysis. Harvard, MA: Analytic Technologies (www.analytictech.com).

## Annex Two: Information on report author

This report has been prepared by Glenn O'Neil, founder of Owl RE. Specialised in the field of evaluation and measurement, Owl RE supports organisations in analysing, assessing and evaluating activities in the communications, training/events and development fields.

Contact details: Glenn O'Neil oneil@owlre.com +41 (0) 76 325 6213

Blog:

http://intelligentmeasurement.wordpress.com