

Web/Online Advertising:

Cumulative, Daily and Incremental Reach $n+$

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Research Goals

- **Develop framework for organizing empirical evidence**
- **Measure cross-section and time-series cumulative, daily and incremental reach $n+$**
- **Highlight implications for management and research**

Approaches to Web/Online Analysis

	Broad Approach	Narrow Approach
Analytical perspective	Site administration	Advertiser, user, sales
User types	All users combined	Distinguish key user groups (adults, men, women, teens)
Number of sites	Across several sites (electronic newspapers, magazines)	Within a particular site (http://sunone.com)
Measures	Hits	Unique users, sales, time, reach $n+$, frequency, distributions
Available data	Estimation based on limited information, sampling	Count all site activity using audit trail or log
Content	All site activity combined	Highlight important site activity (page, menu, advertisement, potential advertisement location)
Time frame	Cross-sectional analysis (total activity for day, week, month)	Time-series analysis (cumulative and non-cumulative activity by the hour, day, week, month)

Sun.ONE

- ***Gainesville Sun (Online News and Entertainment)***
- **BBS established March 1995 (text, graphics, Web)**
- **30 minutes/day free, 3 hours with subscription**
- **UF Interactive Media Lab, staff**
- **Applied Electronic Newspaper class**
- **Daily content from AP, NY Times, Scripps Howard,
*Gainesville Sun***
- **News, sports, entertainment, weather, classified,
email, discussion forums**
- **Web only site December 1996 (<http://sunone.com>),
*SunONE, SunONE Weekly***

***Sun.ONE* Advertisers**

Menu	Advertiser
Main	First Union Bank (banner and click-thru)
News	Red Lobster (banner and click-thru)
Weather	Shicar--discount computers (banner only)
Business	ComQuest Designs--graphic designers (banner only)
Local news	Gainesville Regional Utilities (banner and click-thru)
Cybernews	Mr. Data--computer hardware (banner and click-thru)
Sports and email	Gator Football / Sun.ONE Membership (banner and click-thru)

Sun.ONE Main Menu

13:27:00 16-FEB-96

TOP HEADLINES:



- Spooks posed as journalists
- Body removed from tunnel
- Half schools have Internet
- Coma case: Surgery's over

SERVICES:

Mailbox	Chat lounge
User information	User registry
Internet gateway	Forums
Buy more time	Sun.ONE Archives
HELP	HANG UP

NEWS AND INFORMATION:

News	Sports
Weather	Entertainment
About Sun.ONE	Business
Classified	Week in Review

FIRST UNION First Union National Bank of Florida

Have more options with a First Union credit card [LOOK](#)

F1=help

F10=menu

RIPscrip

9600-N81 FDX

COM1

RIPterm 1.54.00

[Online](#)

Research Method

- ***Sun.ONE* audit trail**
 - 31 days
 - December 30, 1995 - January 29, 1996
 - 400,994 lines of data
 - Time, date, action, channel, user ID
- **SyTrak™ audit trail analysis**
 - Users, menu / ad selections, channels
 - Hits, time on content
 - Reach, frequency, distributions

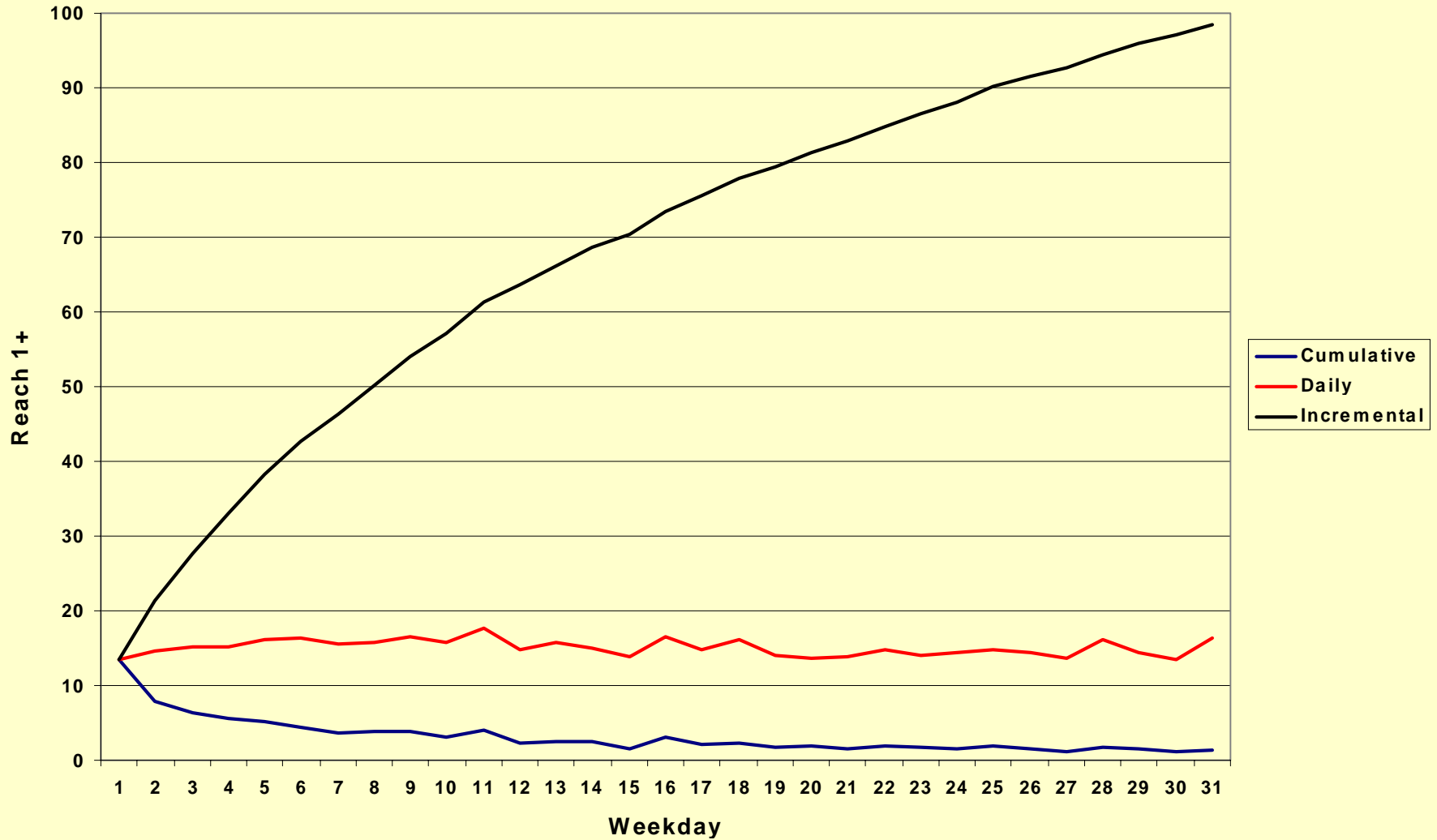
System Activity (31-days)

- **Total user minutes: 385,334**
- **Total user hits: 200,497**
- **Regular users: 2,741**
- **Different menus: 831**
- **Total channels: 38**

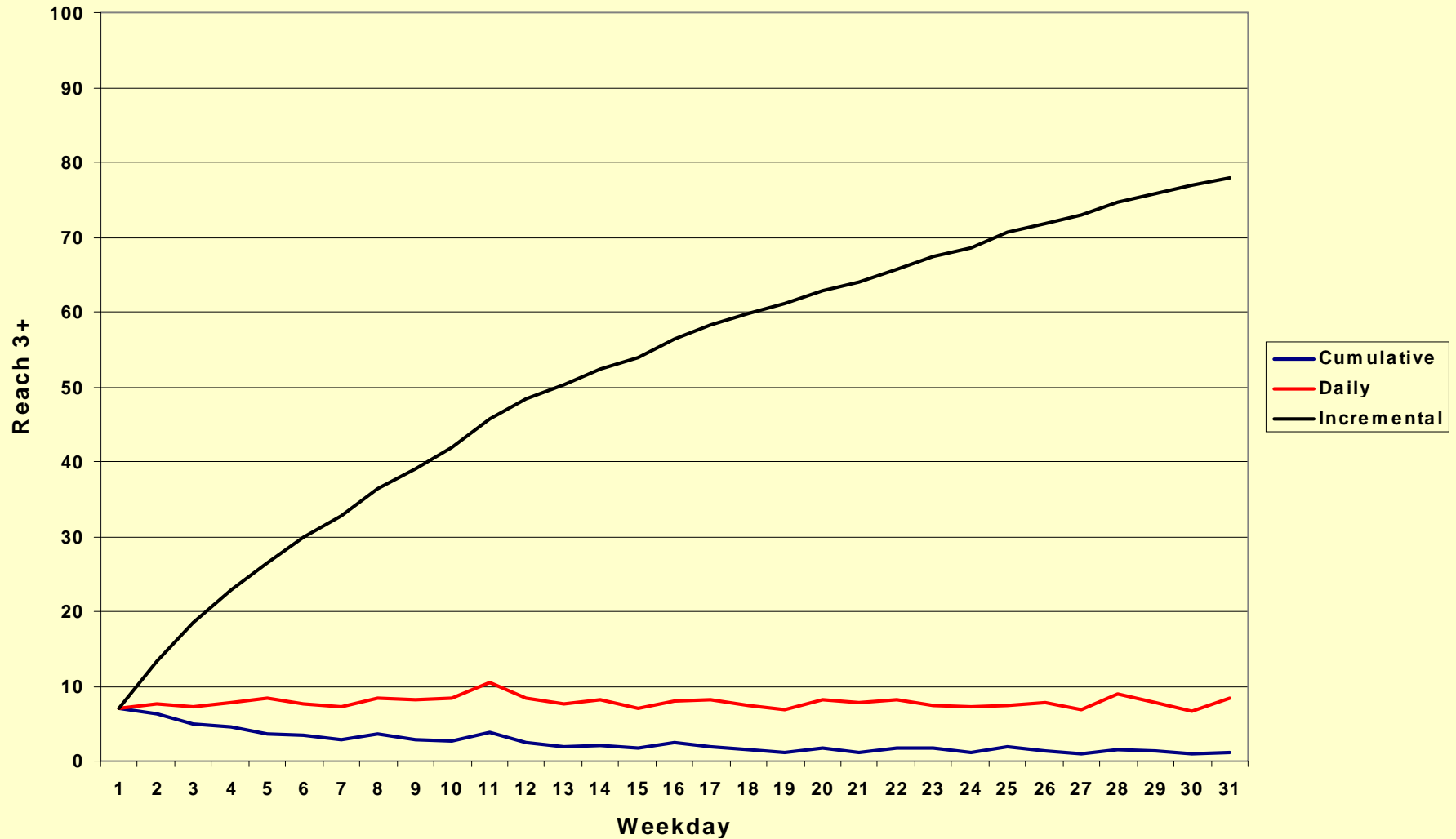
Main Menu Cumulative, Daily and Incremental Reach $n+$

Day	Date	Weekday	Cumulative Reach			Daily Reach			Incremental Reach		
			1+	3+	6+	1+	3+	6+	1+	3+	6+
1	12/30/95	Saturday	13.4	7.1	3.0	13.4	7.1	3.0	13.4	7.1	3.0
2	12/31/95	Sunday	21.3	13.4	6.0	14.7	7.7	2.5	7.9	6.3	3.0
3	1/1/96	Monday	27.6	18.4	9.6	15.2	7.2	2.6	6.3	5.0	3.6
4	1/2/96	Tuesday	33.1	22.8	12.4	15.1	7.8	2.5	5.5	4.5	2.8
5	1/3/96	Wednesday	38.2	26.5	15.5	16.1	8.3	2.7	5.1	3.7	3.1
6	1/4/96	Thursday	42.7	29.9	17.8	16.3	7.6	2.7	4.5	3.4	2.4
7	1/5/96	Friday	46.3	32.7	20.2	15.6	7.2	2.4	3.6	2.8	2.4
8	1/6/96	Saturday	50.2	36.3	22.3	15.8	8.3	3.0	3.9	3.6	2.0
9	1/7/96	Sunday	54.0	39.1	24.5	16.6	8.1	2.8	3.8	2.8	2.3
10	1/8/96	Monday	57.2	41.9	26.9	15.7	8.3	3.2	3.1	2.7	2.4
11	1/9/96	Tuesday	61.3	45.8	30.0	17.6	10.4	3.6	4.1	3.9	3.2
12	1/10/96	Wednesday	63.7	48.3	31.6	14.9	8.3	2.8	2.4	2.5	1.6
13	1/11/96	Thursday	66.2	50.2	33.6	15.8	7.7	2.8	2.5	1.9	2.0
14	1/12/96	Friday	68.7	52.3	35.4	15.0	8.2	3.2	2.5	2.1	1.7
15	1/13/96	Saturday	70.4	54.0	37.0	13.9	7.1	2.3	1.6	1.7	1.7
16	1/14/96	Sunday	73.4	56.4	39.0	16.6	8.0	3.1	3.0	2.4	2.0
17	1/15/96	Monday	75.5	58.3	40.6	14.8	8.2	2.4	2.1	1.9	1.6
18	1/16/96	Tuesday	77.8	59.9	41.8	16.1	7.4	2.6	2.4	1.6	1.2
19	1/17/96	Wednesday	79.5	61.1	43.0	14.1	6.9	2.1	1.7	1.2	1.2
20	1/18/96	Thursday	81.4	62.8	44.2	13.6	8.1	2.9	1.9	1.7	1.2
21	1/19/96	Friday	82.8	64.0	45.6	13.9	7.8	2.4	1.5	1.2	1.3
22	1/20/96	Saturday	84.8	65.8	46.8	14.8	8.1	3.0	1.9	1.7	1.2
23	1/21/96	Sunday	86.6	67.5	48.2	14.1	7.4	2.6	1.8	1.7	1.3
24	1/22/96	Monday	88.1	68.6	49.3	14.5	7.3	2.3	1.5	1.2	1.2
25	1/23/96	Tuesday	90.1	70.6	50.8	14.9	7.5	2.3	2.0	1.9	1.5
26	1/24/96	Wednesday	91.6	71.9	52.0	14.4	7.8	2.4	1.6	1.3	1.2
27	1/25/96	Thursday	92.7	72.9	52.9	13.6	6.9	2.7	1.1	1.0	0.9
28	1/26/96	Friday	94.4	74.6	54.1	16.2	9.0	2.9	1.7	1.6	1.2
29	1/27/96	Saturday	96.0	75.9	55.3	14.5	7.8	2.7	1.6	1.3	1.2
30	1/28/96	Sunday	97.1	76.9	56.0	13.4	6.7	2.1	1.1	1.0	0.7
31	1/29/96	Monday	98.4	78.0	57.1	16.3	8.4	2.9	1.3	1.1	1.1
Average						15.1	7.8	2.7			

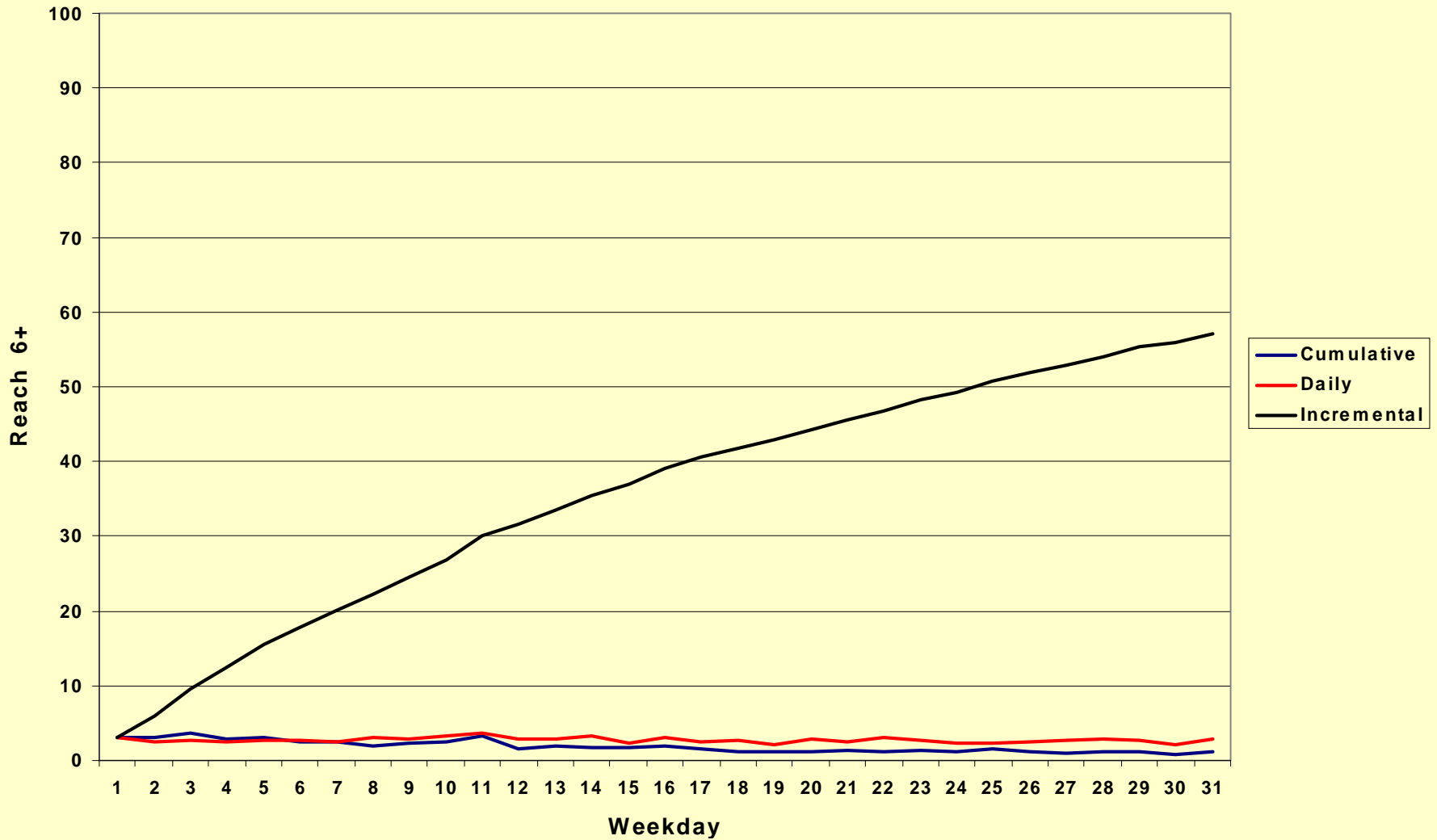
Main Menu Cumulative, Daily and Incremental Reach 1+



Main Menu Cumulative, Daily and Incremental Reach 3+



Main Menu Cumulative, Daily and Incremental Reach 6+



Key Findings

The data and curves show that as n increases there is a substantial and increasing ratio between monthly reach $n+$ and average daily reach $n+$.

Cumulative versus Average Daily Reach $n+$

Reach $n+$				
Frequency Range	Monthly Cume	Average Daily	Cume / Average Daily	Average Daily / Cume
1+	98.4	15.1	6.5	15.4
3+	78.0	7.8	10.0	10.0
6+	57.1	2.7	21.2	4.7

Key Implications

Monthly reach $n+$ measurements are many times greater than those observed on an average day.

Therefore, due to user forgetting and competitive content, average daily reach $n+$ is more likely to parallel measurable communication effects.

Discussion

- **Example time required for 50% reach $n+$**
 - Reach 1+ = 8 days
 - Reach 3+ = 13 days
 - Reach 6+ = 25 days
- **Measurement accuracy**
 - Potential ad banner exposure < full screen
 - Ad click-thru

Further Research

- **Reach $n+$ curves for additional advertisements and content**
- **Frequency distribution details**
- **Estimation of Reach $n+$ based on hits**
- **Duplication across months and with traditional media**