

Evaluating an online diabetes program presents a gaping hole in evaluation theory as landscapes collide

PRESENTED BY:

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AES Conference, Perth, 2016



Reach

- Critical evaluation domain in public health
- **Did the program reach its intended audience?**
- “The absolute number, proportion, and representativeness of individuals who are willing to participate in a given initiative” (RE-AIM model)
- Conceptualising reach for online programs:
 - Lurkers – who can derive enormous value w/o participating
 - Varying levels of participation
 - Often minimal demographics
 - Anonymity valued

Case Study: Evaluating 'Reality Check'

- Online community - Type 1 diabetes
- Peer support program
- 12 years old
- 1,558 registered members
- Six volunteer moderators



www.realitycheck.org.au

A place for young adults to bitch, moan, argue or rejoice (yes, really) about having Diabetes
 Please email forumhelp@realitycheck.org.au with any queries about this forum.

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MAIN FORUM - THE PLACE TO START

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	Topics	Replies	Author	Views	Last Post
	Sticky: Meets CANBERRA 16/3 & BRISBANE 30/3 being planned	0		570	Tue Jan 22, 2008 12:20 pm →
	"Database to link patients and doctors"	6		133	Thu Mar 27, 2008 9:49 am →
	Pumpers: Would you eat less on injections?	10		254	Thu Mar 27, 2008 9:31 am →
	Teenager forum?	6		402	Thu Mar 27, 2008 9:30 am →
	question about daily insulin requirements (pumps)	16		293	Thu Mar 27, 2008 8:58 am →
	Hypo symptoms	2		65	Thu Mar 27, 2008 12:43 am →
	Necro Legs	16		1291	Wed Mar 26, 2008 9:26 pm →
	Alert Dog	12		282	Wed Mar 26, 2008 4:36 pm →
	These drums are too loud.. Im going to go buy a fridge!	3		212	Wed Mar 26, 2008 3:16 pm →
	Parent to a child with diabetes	2		135	Wed Mar 26, 2008 3:00 pm →

Author	Message
<p>Joined: 28 Jun 2008 Posts: 44 Location: Perth</p>	<p>Posted: 25 Sep 2009 10:26 am Post subject: pump start freakout....but loving it now</p> <p>quote edit IP</p> <p>Hi Guys! Thought I would share my little freak out from the other day. I've had this whole week off work (Hooray!) as I was booked in to start pumping Monday and Tuesday. New pink minimed 522. Appt on Monday was 2pm, went through the basics and got 'hooked in' about 4...looked down at this little machine that was now attached to me and a river of tears came from nowhere!!! Oh my god - how do I trust this thing? what the hell am I doing? FREAKOUT!!! Ok lets detach it said my ed and your here for 5hrs tomorrow so we'll do it hen. PHEW! Drove home in relief but sadness... I was supposed to love this thing. Slept on it and was excited for Tuesday. I was no longer overwhelmed and Ready! So we put in on before lunch, had lunch at the hospital so I knew for peace of mind that it would work! haha. So today is Friday and I CANNOT BELIEVE HOW AWESOME THIS IS! My numbers have not been this good in years!! I am gobsmacked. Truly, I am completely comfortable with having it and I love it even more that it is a miracle worker! I've ordered tiger print skins and patches to jazz it up but I just wanted to share how amazing it is! I've heard all your stories and now I know what you mean! Wooooo! Also long weekend in Perth! YEY! Go the Saints!</p>
<p>Back to top</p>	
<p>Joined: 08 Jan 2008 Posts: 230 Location: Port Kennedy</p>	<p>Posted: 25 Sep 2009 11:08 am Post subject:</p> <p>quote edit IP</p> <p>Congratulations and welcome to pumping. Look forward to your stories of getting caught on door handles and the like.</p>
<p>Back to top</p>	
<p>Joined: 07 Sep 2004 Posts: 4155 Location: Melbourne</p>	<p>Posted: 25 Sep 2009 07:49 pm Post subject:</p> <p>quote edit IP</p> <p>Fe, wow, that's an amazing story. I can completely understand - I think there's something about having a mechanical device strapped to you to remind you every minute of every day that you have bloody diabetes that is pretty confronting at first and somethign noone warns you about - but I'm delighted to hear you persisted and are feeling so good about it all now. That is a huge credit to you - a tough cookie, I am most impressed! But what a rollercoaster ride you have been on. I hope</p>

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OVER 2,000 YEARS OF TYPE 1 HERE!

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Message body

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Insert URL: [url]http://url[/url] or [url=http://url]URL text[/url] (alt+w)

Options

HTML is OFF
BBCode is ON
Smilies are OFF

- Disable BBCode in this post
- Attach signature (signatures can be changed in profile)
- Notify me when a reply is posted

Preview

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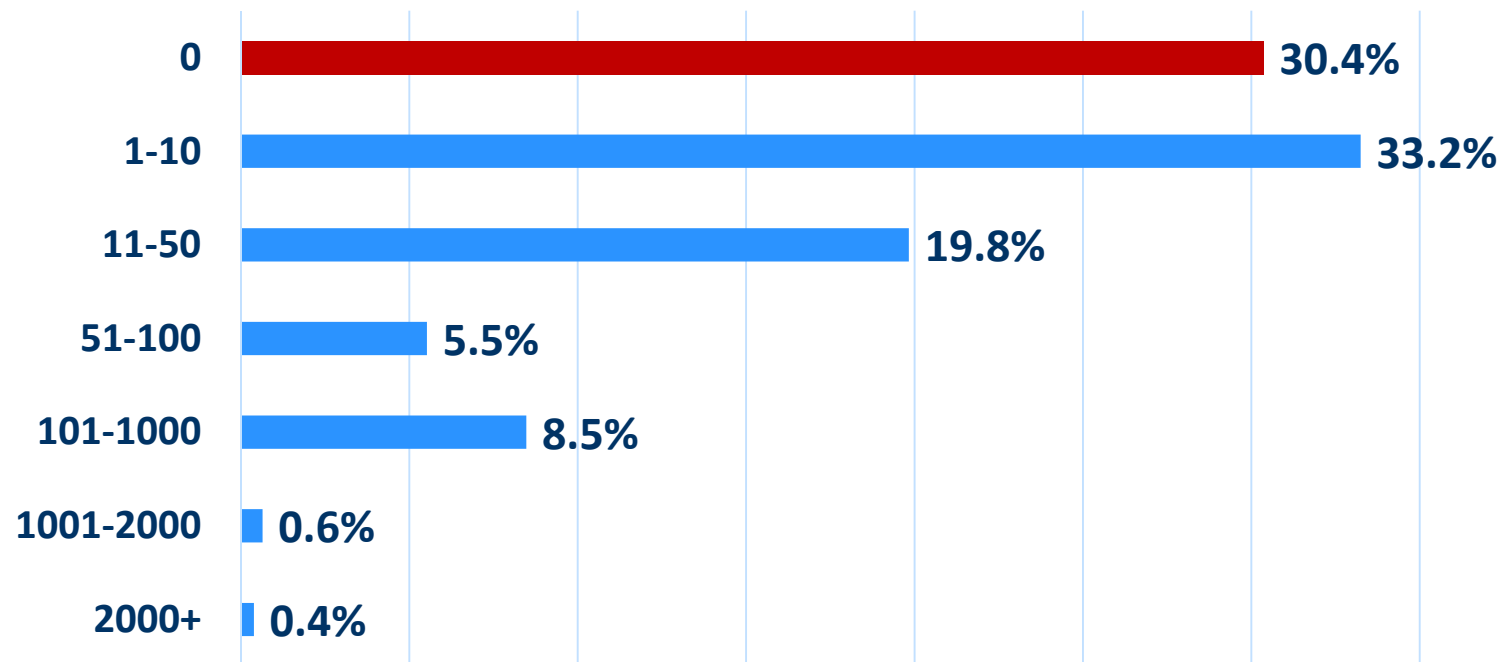
Methods

- Planning and Engagement:
 - Ethics approval
 - Ethical issues with internal evaluation (Owen)
- **Estimating Reach through Website Use Data**
- Content Analysis - one week snapshot
- Online Focus Groups – independent facilitator
- Health Professional Survey – online, anonymous
- Program Managers Workshop

Measuring Reach

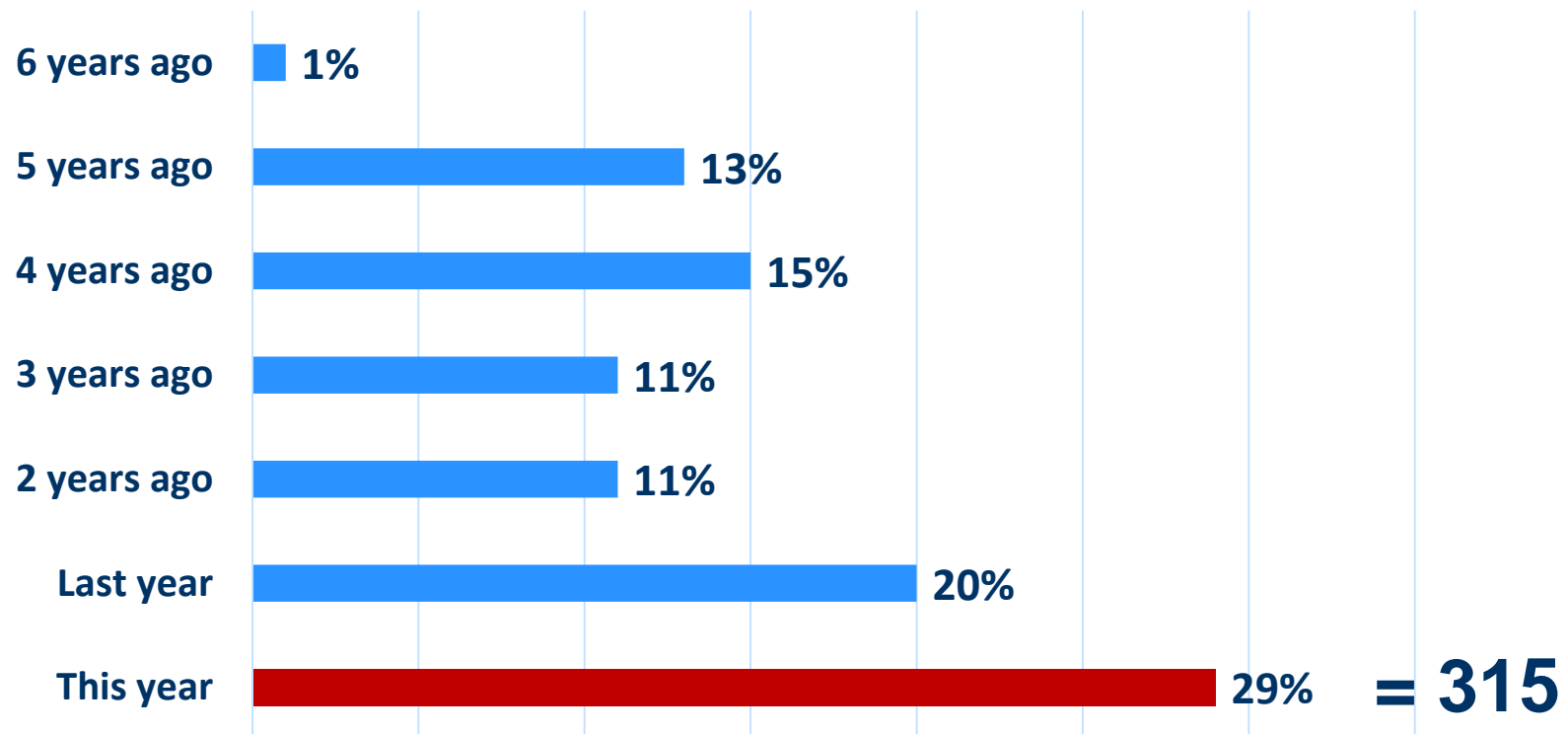
1,558 registered users

By number of messages posted in preceding 6 years



Active participants?

Of 1,085 (70%) posted >1 message, year of last log-in:



Unique visitors from Web Analytics

- Unique visitors only available for whole website
- Data for a specific part of a website is page visits

Month	Page visits to program	Page visits to entire website	Proportion	Unique visitors to website	<u>Estimated</u> unique visitors
June	136,620	154,170	88.6%	9,557	8,469

- Average over 6 months : 7,774
- = 25 times number posted a message same time period



Observers engaged in focus groups

Strong response to focus group recruitment reinforces both presence and 'participation' of observers.

Type of User	Number registered	Number participated
Frequent	16	13
Regular	8	5
Occasional	9	4
Active observers	15	8
Observers	41	12



Lit Review: Online Research Methods

- “Bias in results is too great and too multiplicitous to give value to estimations of the reach” (Burns et al, 2008)
- “Reach is not a valid measure of effectiveness for online communities” (Millington, 2009)



Alternatives to Reach

- Brief “user-profiling”: n=904 re satisfaction, referral patterns, service use
Burns et al (2008) evaluation of Reachout.com.au
- Measure interactiveness or sociability
(Preece, 2001)
- Internal functioning through complex computer-based analytical tools
(De Souza and Preece, 2004, Millington, 2009)



Measure internal functioning instead



Internal functioning:

- Growth in new members
- Interactivity
- Responsiveness
- Liveliness*
- Content utility*
- Popularity*

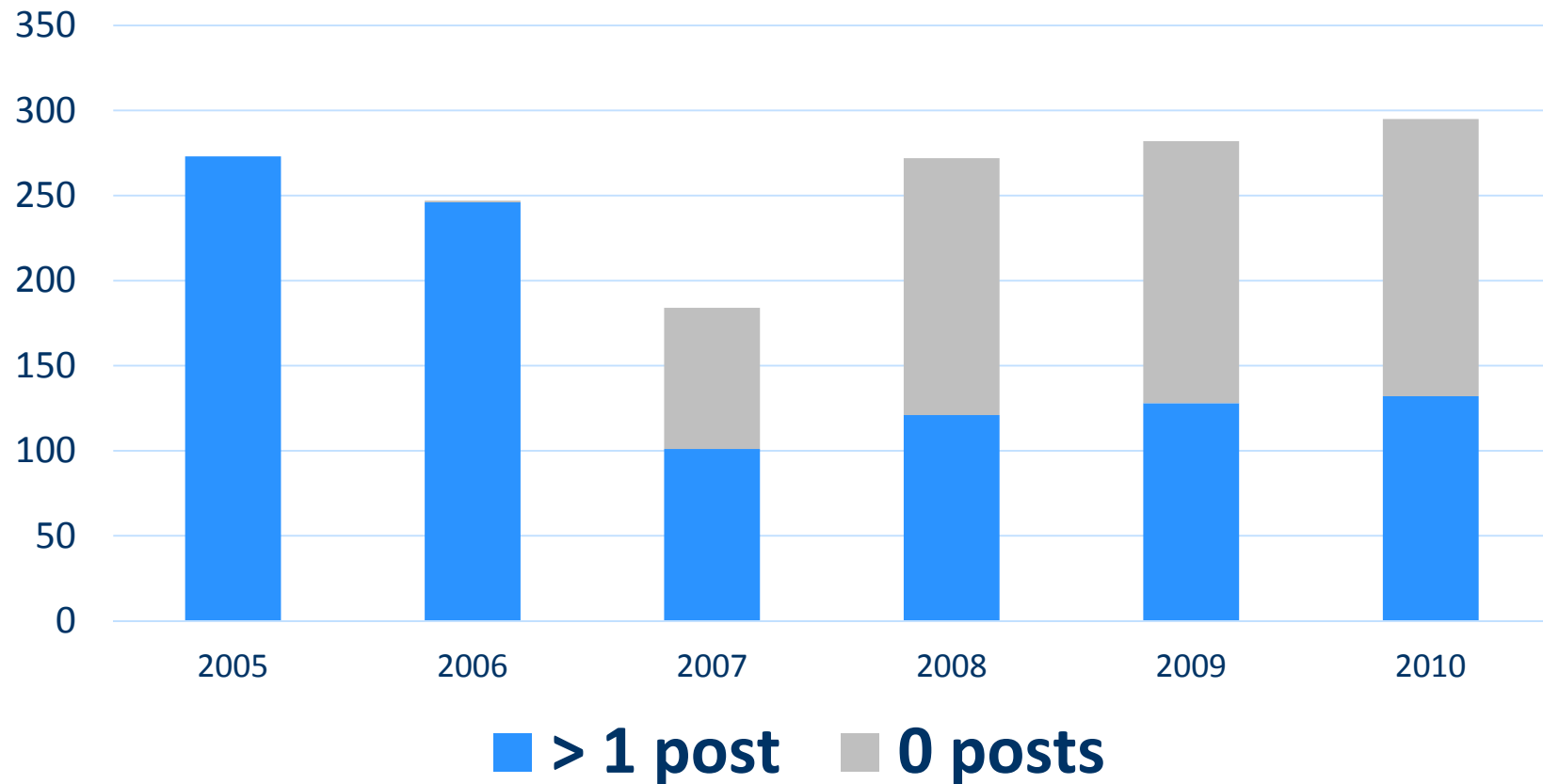
* Critical formulae not available as commercial product

One-week Snapshot



Internal health findings

New registered members by year of registration

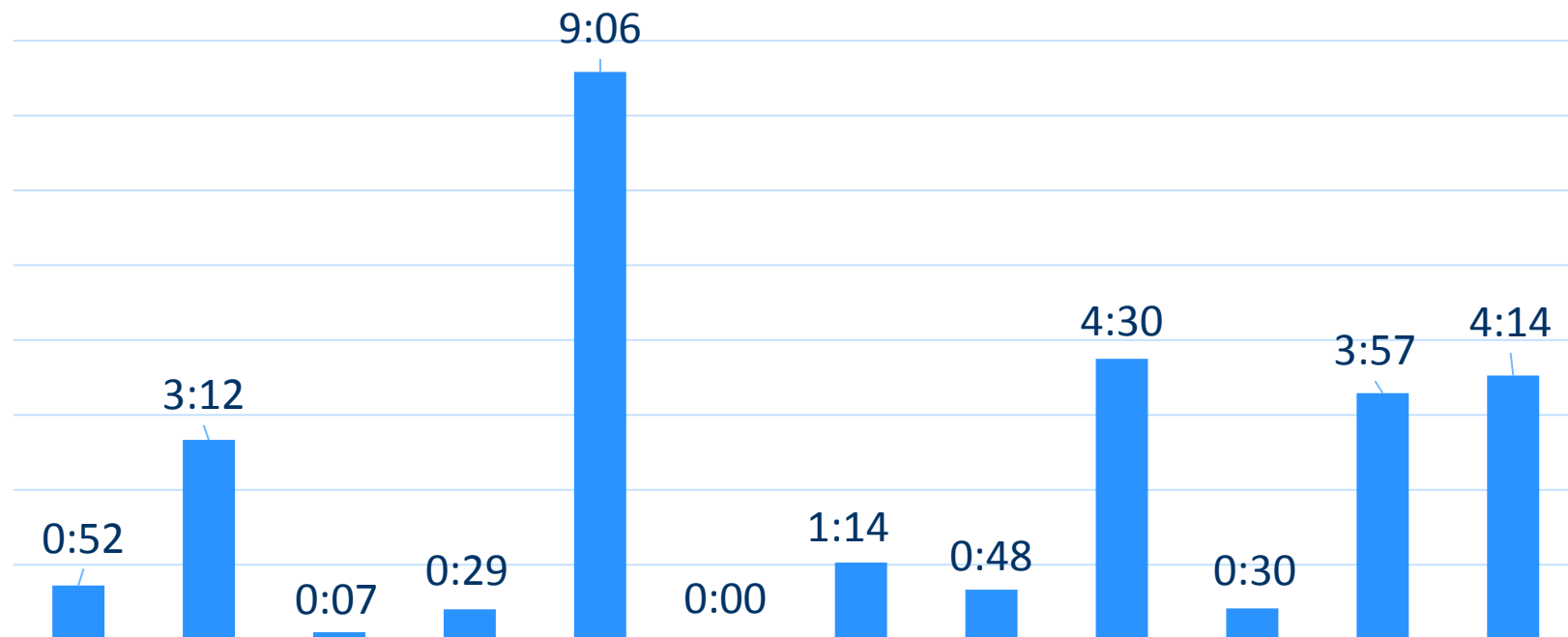


Responsiveness

12 new discussion threads created during 1wk snapshot

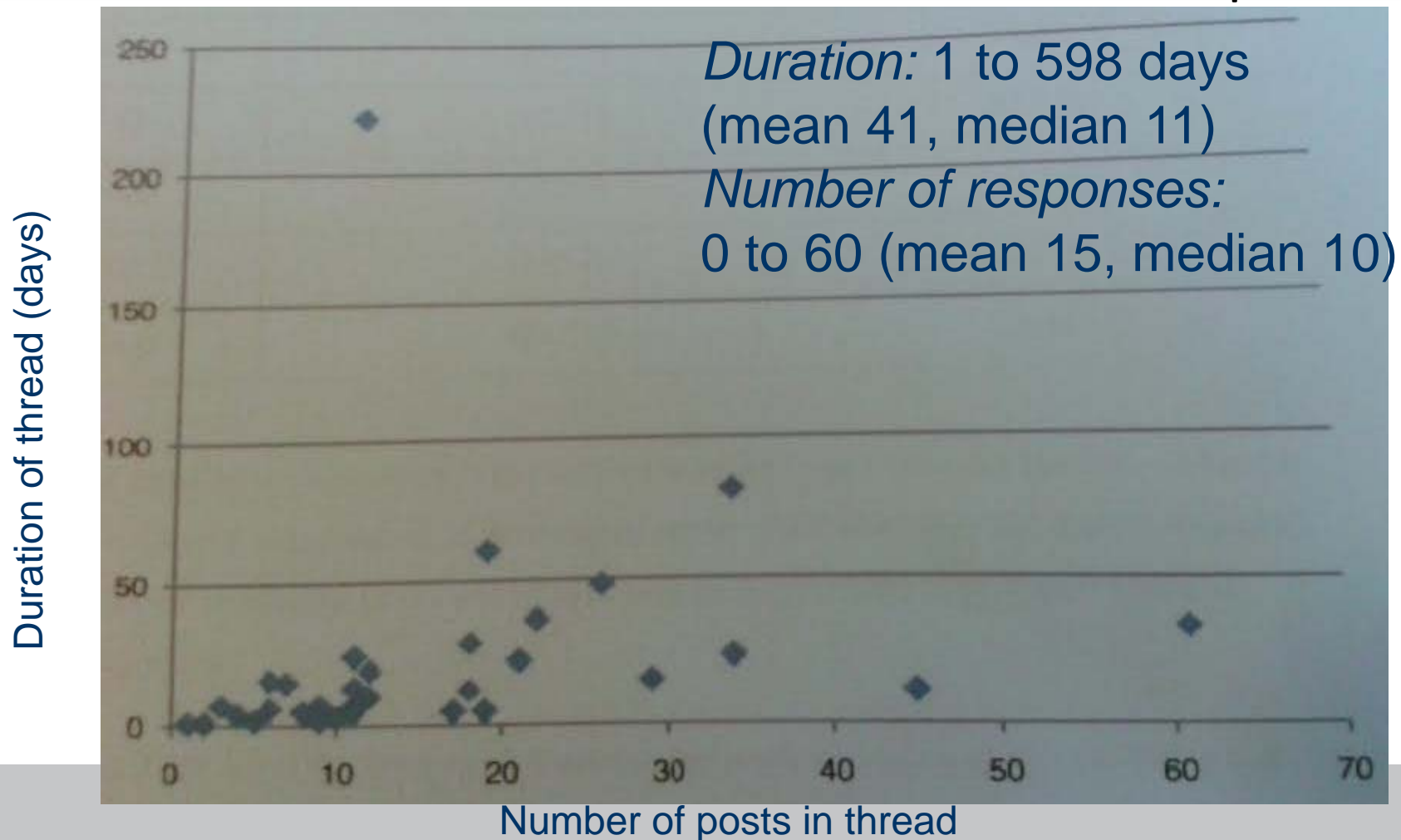
1 = no responses

Response times: mean 2h 38; median 1 h 14min



Interactivity

33 discussion threads active in one week snapshot



Conclusion

- Active participants were only 20% of registered users (former measure of reach)
- Observers are present and participating - especially hard to quantify or describe
- Measuring internal health of an online community gives useful program monitoring information, and is relatively resource efficient



Implications for Evaluation

- Reach of online programs needs to expand its conceptualisation to include:
 - Varying levels of participation - unlikely to correlate with likelihood of benefits
 - Understanding how observers 'participate'
 - Likely other domains to which this may apply
 - Commercial organisations' methods to monitor effectiveness of online programs largely inaccessible to evaluators
- > Are we locked out of best practice in this space?



Acknowledgements

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