

UNCERTAINTY PRINCIPLE

By Richard Drake

The counter says that over ten million people have now seen the video. The cute little buffalo calf pounced on by a pride of lions, dragged through the savannah to the river, only to be set upon by crocodiles, causing a fierce tug-of-war as to who should eat what. Three-way gore unprecedented in such amateur footage and recently named all-time favourite YouTube download by co-founder Chad Hurley – in two short years of that world-changing phenomenon. Sometimes, like the shocked tour group watching from their jeep in South Africa, it's hard to cope with the excitement and the uncertainty. We desperately need some experts to give guidance, to tell us the boundaries.

We could all see the calf wasn't having the best of days. But how could it have known it was already on camera, set to become the web celebrity of 2007? Same for the lucky group of six at Kruger, who knew they'd hit it big, with trembling hand-held video to prove it. Even the guide admits excitedly to a colleague by mobile phone that he's never seen anything like it. But when, in a final, wonderful twist, a massive buffalo herd returns to the scene to dispense justice to the ravaging lions, the expert is unequivocal: it's too late now to save their baby. How characteristic of the medium itself that a few seconds later the certain victim gaily trots back to the collective who've successfully released it from its nightmare!

It's not just wild animals but also Republican presidential hopefuls. The experts have been sure all year that ageing libertarian congressman Ron Paul has no chance in the forthcoming primaries. Until, presumably, they clicked on this kind of thing on the CNET website in August:

Paul is Technorati's most searched-for term, in front of stalwart contenders such as 'iPhone' and 'Paris Hilton' ... He's a close second to Barack Obama (and far outpaces Hillary Clinton) on Eventful.com's list of in-demand politicians, and, as the *New York Times* notes, is the most 'friended' Republican on MySpace ... Last month, Paul made what has become a now obligatory campaign stop at Google that drew a standing-room only crowd ... the YouTube video of Paul's appearance has drawn 165,000 pageviews so far. Videos of Clinton, Bill Richardson, McCain, and John Edwards appearances at Google have received a combined total of 66,000 pageviews.

Make that 180,000 pageviews now, chickenfeed – if one wounded buffalo calf

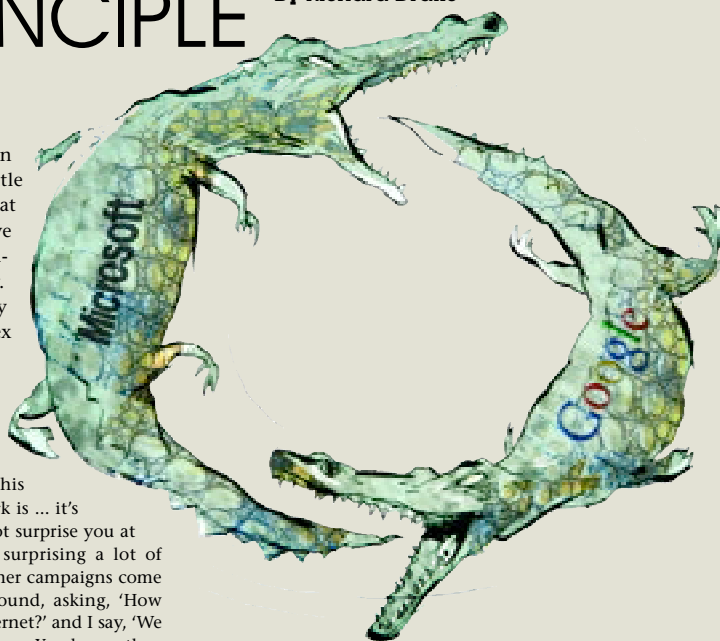
will excuse the expression – compared to the battle of the big game at Kruger, but impressive nonetheless for a full-hour political interview. Here's the wry humility of Paul in his Googleplex wrap up:

We don't really understand yet – maybe you do – exactly how pervasive and how influential this communication network is ... it's surprising us, it may not surprise you at all, but politically it's surprising a lot of people ... We've had other campaigns come to us, kinda feeling around, asking, 'How did you harness the internet?' and I say, 'We didn't – they harnessed us. You know, they heard the message and they spread the message for us.' So I think the message is every bit as important as the vehicle and fortunately for us ... in this campaign it's coming together.

I'll speak now for the congressman's enthusiastic young inquisitors. The folk at Google likewise had no idea of the ability of the net to cause the US to look seriously at a principled, limited government candidate in 2007. The synergy of medium and message has taken everyone by surprise, as Paul cheerfully admits.

The internet's like that. Who would have predicted that early one morning in June, a certain Richard Drake in London would see a green light on a chat widget on Marc Andreessen's blog and take up till bedtime on the Pacific coast on an unscheduled interview with the young entrepreneur who, commercially speaking, took the web and made it worldwide in the first place?

JIM CLARK GAVE HIS VERDICT THAT THERE WAS NO MONEY TO BE HAD – A PREDICTION NETSCAPE WERE GOING TO DISPROVE IN SPECTACULAR FASHION LESS THAN TWO YEARS LATER!



Here's the meat of that encounter, lightly edited for early-morning/late-night typos and non-sequiturs:

me: is it true that jim clark said 'nobody ever made money out of the internet' when he was first told of netscape? [I meant Mosaic, later renamed Netscape]

marc: i don't think that's true, jim and i created netscape together in '94

me: have you heard that story told?

marc: yep, for sure. at the time, you could count the number of people making money out of the internet on one hand :-) uunet and netcom and psi and maybe a few other isp's. and maybe o'reilly. and that was about it

me: absolutely. i've met tim berners-lee by the way. i was part of an awards thing at the house of commons in london and we gave an award to tim

marc: cool :-)

me: but well done for what you did for us all!

marc: thanks!

me: this article looks great, i'll use that quote of economists and recessions for sure. v true

marc: cool!

Marc's riposte in his blog to dark forecasts of a 'second dotcom bubble' is exactly to our point:

Paul Samuelson once quipped 'Economists have successfully predicted nine of the last five recessions.' One might paraphrase this for our purposes as 'Technology industry experts have successfully predicted nine of the last five bubbles' ... or perhaps more like five of the last one bubbles.

Marc knows more than most how unpredictable the journey was to form the

web as we know it, from the moment aged 22 when veteran Silicon Valley entrepreneur Jim Clark gave his verdict that there was no money to be had – a prediction Netscape were going to disprove in spectacular fashion less than two years later! And what are the motivational issues of becoming a billionaire so young, in such a world-shaping way?

me: do you enjoy things you do now? is it possible to enjoy something as much after netscape?

marc: enjoy it just as much but in different ways :-)

me: you must be a little bit ruined for some kinds of stuff. it's an amazing story

OK, jargon ahead. This hint may or may not help: LiveScript was renamed JavaScript in 1995, in somewhat confusing honour of what was then considered a more serious programming language, Java, at the time it was also adopted by Netscape. Even if you've no interest in such details, just smell the marvellous unpredictabilities here:

me: i'd love to talk to you about the genesis of livescript and the adoption of java. my company picked up on java strongly in london from 1995. do you ever regret giving that opportunity to sun? that was a big lift for them. or was it something you had to do?

marc: i always thought it would be good for netscape, good for sun, and good for the industry. and i think it was :-) i was surprised that java didn't do better on the client, but the huge success of javascript has been great fun to see. if i had to guess in 1995, i would have predicted java would have won on the client and javascript on the server. instead, it was the other way around. although php then took off on the server, so i was kind of right :-)

me: yeah, and now ruby & rails. i'm an untyped languages guy myself

marc: yup. me too

me: but ruby needs java's vm right now – so good engineering is needed too

marc: javascript got a strange reception at first. sun didn't want it. and then for a few years people didn't know what to make of it. and then, boom :-)

me: yeah, gosling has always been in the typed camp. but then that reflects comp sci for many years. did brendan eich originally do livescript? how did you meet him?

marc: yup, he did it, pretty much single-handedly

me: did you pick him?

marc: yup. well, we hired him out of sgi i think. or microunity. can't remember which. incredibly sharp guy

me: an amazing achievement. you can criticise details later, like with any language, but it's a real achievement for that time

marc: yup! and i think by most analyses it is today the world's most widely used

MICROSOFT IS ON THE PROWL AGAIN, FAR FROM POPULAR BUT WITH ENORMOUS, ACCUMULATED POWER

programming language. not what we would have guessed :-)

me: there is much of history that cannot be predicted! like you say, it was ignored by most people ... then pow. have you come across jeremy ruston and tiddlywiki? all written in javascript, after he'd seen gmail for the first time. great idea. it's amazing what's being birthed in js now

marc: yup, love it :-) off to bed :-)

me: have a good nite!

This friendly chat all took place, my side, in a widget in the Firefox browser that is the single most important descendant of Marc's own work on Mosaic and Netscape. The widget itself was made possible through the JavaScript language created by Brendan Eich, hired by Andreessen and still at the helm of the pioneering open-source effort at Mozilla that supports Firefox and its associated technology. A massive case of what one old Reuters developer used to call 'eating one's own dog food'. Every now and then it can taste particularly good.

Dog food, chickenfeed, lion prey. That takes us neatly – or bloodily – to our final enigmas. Despite the outward beauty and goodness, the internet world, like all industries in flux, has a dog-eat-dog quality behind the scenes. There's no question, for example, that Microsoft ruthlessly targeted Netscape from 1995 onwards and, by giving away Internet Explorer for free and bundling it with all copies of Windows, drove dear Marc and Jim into exactly the kind of crocodile-infested water-hole Bill Gates intended for them. ('Just take your billions and go!') So what are we likely to witness next on the internet savannah?

Microsoft is on the prowl again, far from popular but with enormous, accumulated power. Just take the recent launch of Vista, the new version of Windows. In July the president of Acer, one of four top PC makers worldwide, broke ranks and said out loud what many were thinking: Vista was a 'disappointment to the whole industry': late, buggy and unstable. On the other hand, three months earlier, the shape of the numbers was already clear to *Engadget*:

... record profits are the expected benefits of selling 20 million copies of a much-

delayed operating system ... increasing net income 65% year over year to a staggering \$4.93 billion.

Mediocre product generating massive profits? That's the king of the jungle for you: give lesser creatures whatever you like and they still have to pay you obeisance. The power lies in the dangerous matter of backwards compatibility of software and data. There's only one problem: the resulting lock-in can make even your own customers hate you.

Hence the reactions: the rise of Google and the web. Open-source software (which Google uses and promotes but notably doesn't endorse to the point of providing their own precious source code). The rise of Facebook, increasingly seen as a third major force, current legal spats permitting. The ambitious social network recently attracted Blake Ross, 22, renowned programmer of Firefox as it emerged so strongly from the ashes of Netscape (a move many see as significant, with implications, among other things, for the way JavaScript will be supported by the fast-moving new platform).

How open is Facebook? Their convention of using real names is to be applauded but there are legitimate concerns about their draconian terms of service, which dictate that they own and can do anything they like with any information you enter into the system, about yourself or others. Watch for a series of reactions from rivals to that ambitious, some would say greedy, approach.

And watch at the same time for Microsoft Silverlight. As someone who is constantly looking for less complex ways to produce software, I note this attempted replacement for Flash may allow the simpleheads among us to program in the same productive object language – Ruby – in the browser as well as remote machines providing web services. That won't mean an immediate end to JavaScript, but it opens up the battle – and the potential quality of web systems for end users – in a most helpful way. The pressure of the marketplace may just be forcing big M to produce real quality at last.

It's not clear how Google and Apple, who've already collaborated closely on the beautiful and popular iPhone, will respond to a potential Facebook/Firefox/Silverlight axis, if it emerges. Most tellingly, will the open-source community, like an angry herd of buffalo, prove able to protect its most vulnerable, those with fewer resources who've been so empowered by the openness of the web so far, from the darker side of some less-than-open machinations?

It's gloriously uncertain. But I vote once more for people power. ■