NewScientist

What do journalists really want

Valerie Jamieson International Science Communication Workshop OIST 19 March 2015

What do journalists really want?



- Introducing New Scientist
 - how we find stories
 - how can you help?

- What the media wants
 - how does this apply to you?

A bit about me

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■ Features editor at *New Scientist* for 12 years

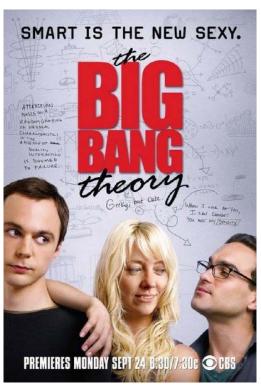


Nobel prize ceremony

with Peter Higgs



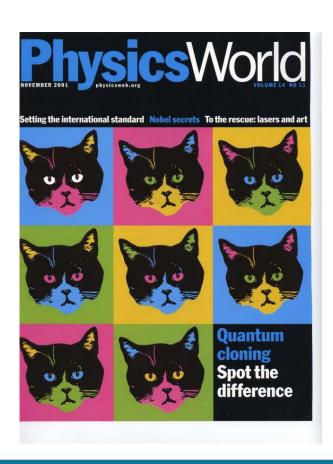
Visiting telescopes in Chile

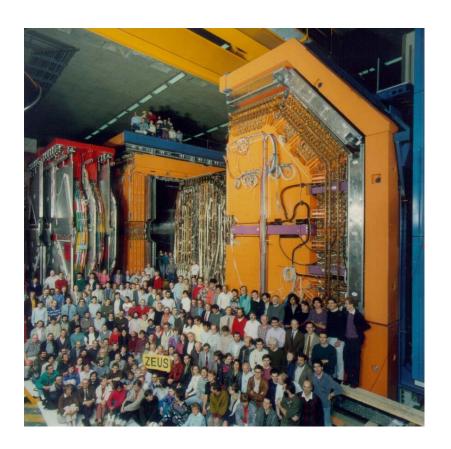


On TV

Before I joined New Scientist

- 00000000000000000000
- Previously at *Physics World* magazine for physicists
- Ex-particle physicist at Oxford University





Introducing New Scientist

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- World's most popular weekly science and technology magazine
- 5.2 million readers engage with *New Scientist* each week

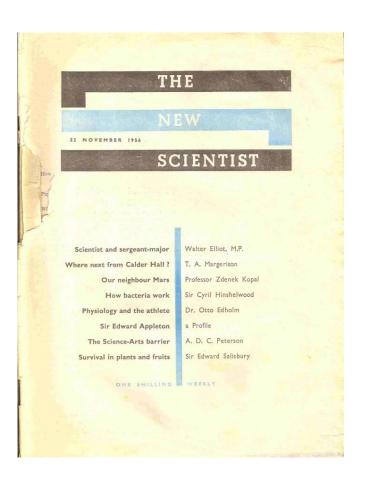


- Published in UK, USA, Australia
- Also French, Dutch and Russian-language editions

New Scientist – the magazine

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■ Launched in 1956 for:

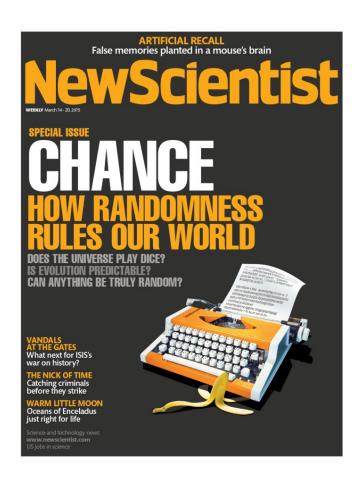


"All those men and women who are interested in scientific discovery and in its industrial, commercial and social consequences"

New Scientist – the magazine

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New Scientist today:



"All those men and women who are interested in scientific discovery and in its industrial, commercial and social consequences"

Who are our readers?

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- Most of our readers have a science degree, but do not work as scientists
- New Scientist is a leisure read and that changes how we do things
- We must be informative and entertaining

More than a printed magazine





- Our websitenewscientist.com has3.3 million users
- Social media is very important to us
- Twitter: 1.54 million followers
- Facebook: 2.4 million likes

Promoting stories on Facebook is very effective

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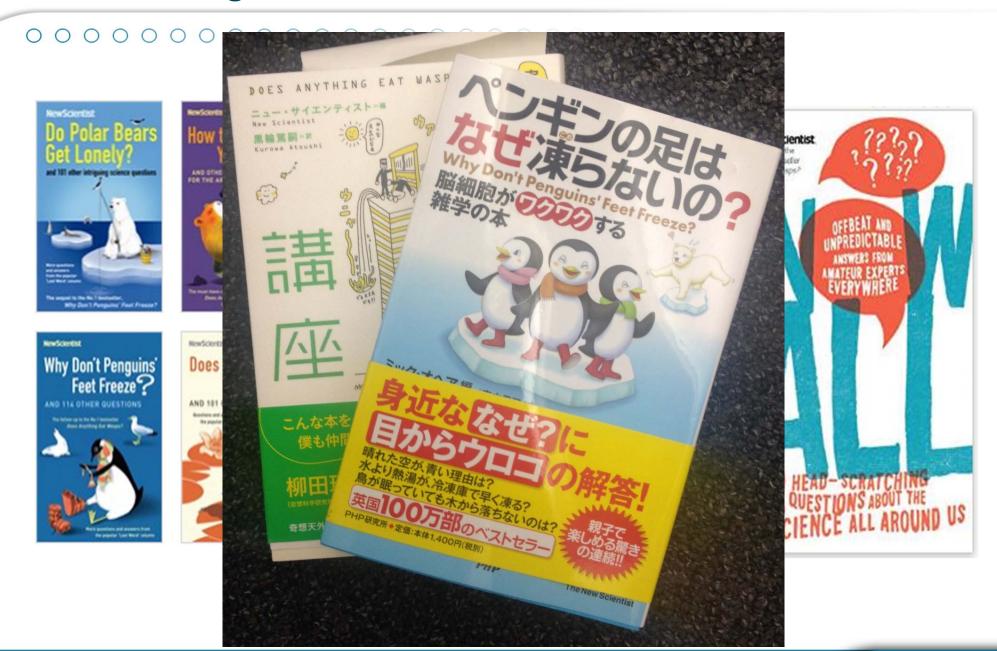
People reached:1 million +

• Likes: 17,200

Comments:4,700

Shares: 5700

More than a magazine: over 2.4 million book sales in UK



We track carefully what sells...

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Our most popular cover stories









Can you tell why?

Stories that broke our internet ...

2. Woman of 24 found to have no cerebellum in her brain



A 24-year-old woman has discovered that her cerebellum is completely missing, explaining some of the unusual problems she has had with movement and speech

Helen Thomson 10 September 2014

From magazine issue 2986 Labelled: News

1. What colour is the dress? Here's why we disagree



Science explains why the internet is split over the colour of a dress – and what it could tell us about our internal biases

Michael Slezak 27 February 2015

Labelled: News

3. Epic cosmic radio burst finally seen in real time



They're over in a flash, but a mega-powerful radio burst has finally been spotted in real time, rather than in old data, giving clues to their mysterious origin

Michael Slezak 19 January 2015

Labelled: News

1. First human head transplant could happen in two years



A radical plan for transplanting a head onto someone else's body is set to be announced. But is such ethically sensitive surgery even feasible?

Helen Thomson 25 February 2015

From magazine issue 3010 Labelled: News

Deadly lake turns animals into statues

-) 01 October 2013 by Rowan Hooper
-) Magazine issue 2936. Subscribe and save
-) For similar stories, visit the Picture of the day Topic Guide



(Images: Nick Brandt)

Promoting stories on Facebook is very effective

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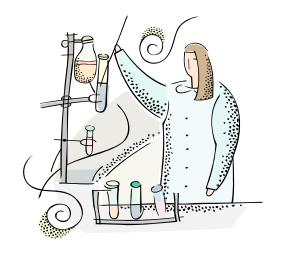
Comments:4,700

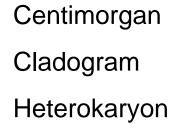
Shares: 5700

All of this depends on

CONTENT

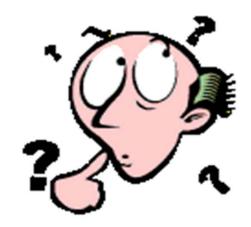
Amphiphilic Isomeric Mesoporous



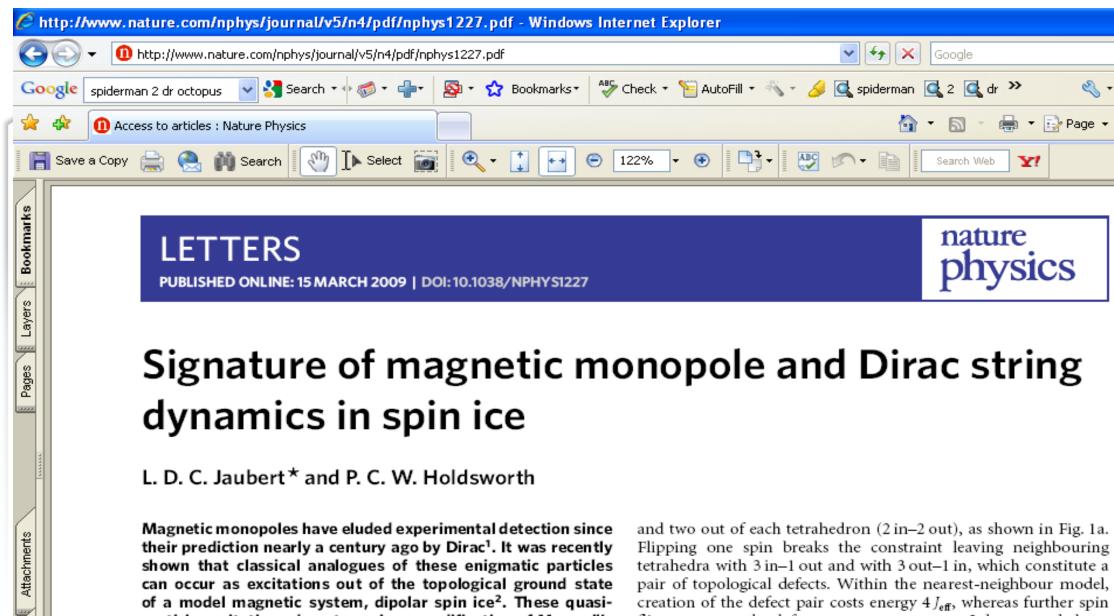




Bosons
Entanglement
Paramagnetism







258 (1 of 4)

Magnetic monopoles have eluded experimental detection since their prediction nearly a century ago by Dirac¹. It was recently shown that classical analogues of these enigmatic particles can occur as excitations out of the topological ground state of a model magnetic system, dipolar spin ice². These quasiparticle excitations do not require a modification of Maxwell's equations, but they do interact through Coulomb's law and are of magnetic origin. Here, we present an experimentally measurable signature of monopole dynamics. In particular, we show that previous magnetic relaxation measurements in the spin-ice material Dy₂Ti₂O₇ (ref. 3) can be interpreted entirely in terms of the diffusive motion of monopoles in

and two out of each tetrahedron (2 in–2 out), as shown in Fig. 1a. Flipping one spin breaks the constraint leaving neighbouring tetrahedra with 3 in–1 out and with 3 out–1 in, which constitute a pair of topological defects. Within the nearest-neighbour model, creation of the defect pair costs energy 4 $J_{\rm eff}$, whereas further spin flips can move the defects at zero energy cost. It has recently been shown² that including the full dipolar Hamiltonian of equation (1) leads to an effective Coulombic interaction between the topological defects separated by distance r, $\mu_0 q_i q_j / 4\pi r$, where μ_0 is the permeability of free space, $q_i = \pm q = \pm 2m/a$, and a is the distance between two vertices of the diamond lattice (see Fig. 1); that is, to a Coulomb gas of magnetic monopoles. Standard electromagnetic

Magnets have always had a north and a south pole -until now. Eugenie Samuel Reich reports



HEY seem magical: magnets, every child's favourite science toy. Two otherwise ordinary lumps of metal draw inexorably closer, finally locking together with a satisfying snap. Yet turn one of them round and they show an entirely different, repulsive face: try as you might to make them, never the twain shall meet.

If magnets seem rather bipolar, that's because they are. Every magnet has two poles. a north and a south. Like poles repel, unlike poles attract. No magnet breaks the two-pole rule - not the humblest bar magnet, not the huge dynamo at the heart of our planet. Split a magnet in two, and each half sprouts the pole it lost. It seems that poles without their twins magnetic "monopoles" - simply do not exist. That hasn't stopped physicists hunting. For

decades they have ransacked everything from moon rock and cosmic rays to ocean-floor sludge to find them. There is a simple reason for this quixotic quest. Our best explanations of how the universe hangs together demand that magnetic monopoles exist. If they are not plain to see, they must be hiding.

Now, at last, we have might have spied them out. The first convincing evidence for their existence has popped up in an unexpected quarter. They are not exactly the monopoles of physics lore, but they could provide us with essential clues as to how those legendary beasts behave.

So what attracts physicists to monopoles? Several things. First, there's symmetrya purely aesthetic consideration, true, but one that for many physicists reveals a theory's true

worth. For over a century, we have known that magnetism and electricity are two faces of one force: electromagnetism. Electric fields beget magnetic fields and vice versa.

Accordingly, the classical picture of electromagnetism, formulated in the late 19th century, is pretty much symmetrical in its treatment of electricity and magnetism. But although positive and negative electric charges can separate and move freely in electric fields, magnetic "charge" remains bound up in pairs of north and south poles that cancel each other out. "No monopoles" is another way of saying that there is no such thing as a freely moving magnetic charge.

In 1931, this puzzling asymmetry caught the attention of the pioneering quantum physicist Paul Dirac. He pointed out that

quantum theory did not deny the possibility of monopoles; on the contrary, they could be quite useful. His calculations showed that monopoles existing anywhere in the universe would explain why electric charge always comes in the same bite-size chunks, or quanta.

Even so, monopoles were little more than a curiosity, and the lack of any obvious examples That all changed in the 1960s with the wide acceptance of the big bang theory - the idea that the universe began in a fireball governed by a single force that has since splintered into the fundamental forces we see today. The great ambition of physics became to construct a theory that would reunite these forces.

There are many different approaches to this goal, and almost all have an odd feature in

common: they say that chunks of magnetic charge must have been created in the very first fraction of a nanosecond of the universe's existence. Some theories, like Dirac's original idea, suggest these monopoles are very massive, with a mass around 1016 times that of a proton. Other approaches suggest more modest beasts with a mass only nearby dampened the enthusiasm for the chase. a few thousand times the mass of the proton. But all predict they should be there.

Shady characters

Suddenly monopoles assumed a new significance. Not only would the detection of magnetic monopoles be a major boost for "grand unified" theories of how the universe began, but finding the mass of a monopole

would help distinguish which of those theories were on the right track. "The search has a low chance of paying off, but a very high importance if it did," says Steven Weinberg of the University of Texas at Austin, who won the Nobel prize for physics in 1979 for his work on force unification.

Sheldon Glashow of Harvard University, who also took a share of the 1979 prize, took the monopole idea a stage further. That same year, he suggested that beefy, Dirac-type monopoles might also be the answer to one of cosmology's most important unsolved problems: they might be the identity of the unseen dark matter that is thought to make up most of the universe and to have formed the structures that led to galaxies.

Physicists thus had a wealth of reasons to >

28 | NewScientist | 9 May 2009

2060-4=2056

9 May 2009 | NewScientist | 29

SPARK OF GENIUS

How to have brilliant ideas MAKING WAVES

Was the Katrina catastrophe man-made? GOOGLE WHACKED

Stephen Wolfram takes on the web giant

NewScientist

WEEKLY 9 May 2009

FREE
POSTER!
ANTIMATTER
EXPLAINED

MYSTERIOUS MONOPOLE

Predicted by theory
Hunted for decades

FOUND AT LAST

Pandemic flu Can science save us?

63.25 US\$5.95 No2707

News, ideas and innovation www.NewScientist.com The best jobs in science

Other ways we make stories happen

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Journalists give up drinking

Testing if there are any health benefits

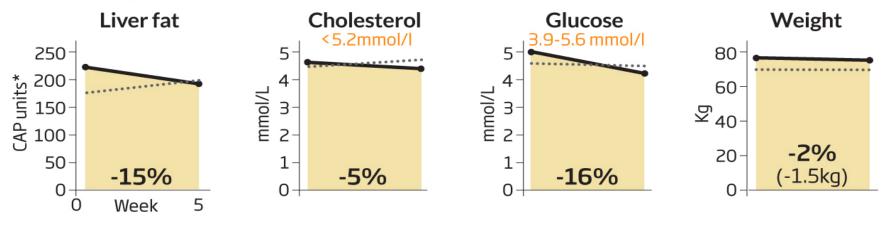
New Scientist works with researchers at London hospital

Cutting out the booze

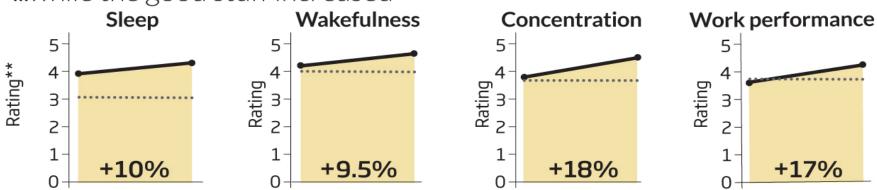
A small group of *New Scientist* staff gave up alcohol for 5 weeks. Here's how their bodies responded

People who abstained from alcohol (10)
Control group - no change in drinking habits (4)
Healthy range

The bad stuff decreased....



...while the good stuff increased

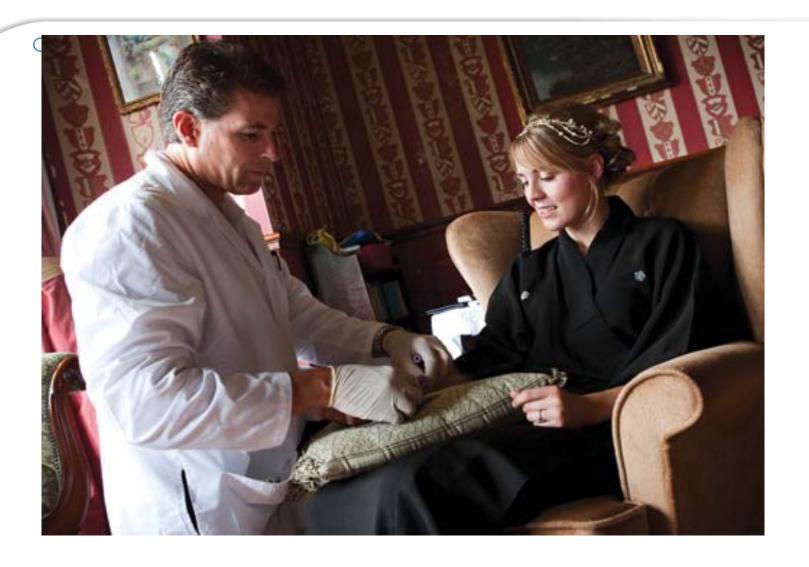


*CAP measures the decrease in amplitude of ultrasound waves as they pass through the liver, which corresponds to the amount of fat present. **Rating on scale of 0 (worst) to 5 (best)

Other ways we find stories ...

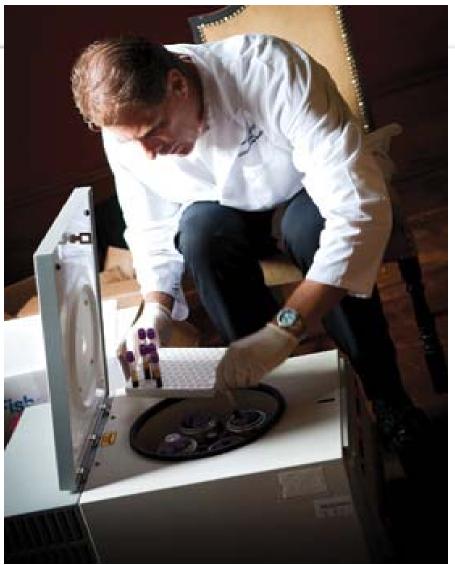


Our reporter gets married and invites a special guest



World's leading oxytocin research takes blood from Linda before, during and after her wedding vows

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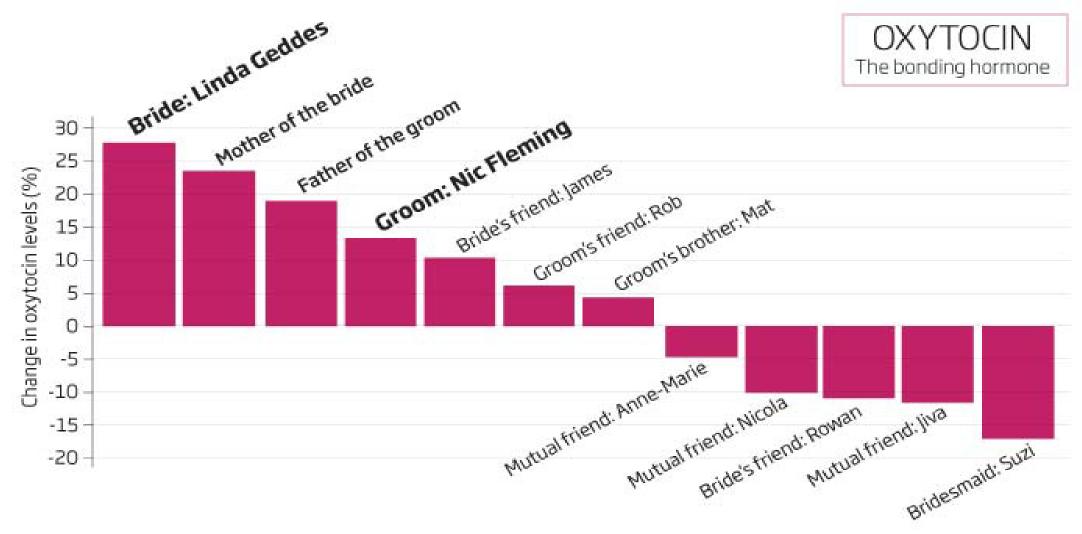


Blood samples from Linda, groom and guests analysed during reception

Feeling the love

© NewScientist

The bride, groom and close family members experienced a surge in the bonding hormone oxytocin during the wedding ceremony, a response that may have evolved to bind the couple to those who will help to bring up any future children



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The big question

WHAT DOES THE MEDIA WANT?

What the media wants

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- ■Same as it has always wanted...
 - Newsworthy stories
 - Stories that make people care
 - Change perceptions
 - Quirky stories
- Availability
 - We want to talk to the scientists
- Demand for online is huge ...
 - Great photos, videos, quizzes can all make stories too

New Scientist videos on youtube







Newsworthy story

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- ■Tell me what's going to happen before a meeting, not 3 weeks after
- ■Make *me* care
 - Not scientists
- Assume I know nothing, avoid jargon

Change perceptions

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Astronomy observation suggests that Einstein might be wrong about relativity theory

Also:

- Newsworthy
- Astonishing
- Most people have heard of Einstein



Stories people care about

- Everyone sleeps
- Many people complain they don't get enough sleep
- Also:
 - Intriguing
 - Promises to change your perception



Big ideas

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- Promises to explain the biggest ideas in science
- Also:
 - People want to understand
 - Mind blowing



Things that make you go "Wow!"

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- Astonishing photograph
 - Leaves you wanting to know more

Deadly lake turns animals into statues

-) 01 October 2013 by Rowan Hooper
-) Magazine issue 2936. Subscribe and save
-) For similar stories, visit the Picture of the day Topic Guide



(Images: Nick Brandt)

Quirky stories

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- When I visited fusion reactor
 - Interviewing lab director, visiting reactor ... all a bit boring
 - Remote handling ... awesome!



Dr Octopus in Spiderman 2

What's better than a press release?



Personal contacts

- Best way to get stories
 - Newspapers, magazines, TV news and radio face a lot of competition and want to stand out by being first or having a totally different angle
 - Britain's most popular morning radio news programme will not cover a story that has been covered by TV the night before
- Better understanding of what a publication wants
- Emails and voice messages get a reply

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What's new in 2015

OPPORTUNITIES ...

Huge appetite for science at the moment

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- Movies: Interstellar, Theory of Everything, Chappie, The Martian...
- TV shows The Big Bang Theory, Cosmos, Wonders of the Universe
- More competitors for *New Scientist* means more opportunities for you



IFL Science20 million likes on facebook



Science Alert6.3 million likes on facebook



+ many, many more digital titles

BuzzfeedHiring top science journalists

New trend/new opportunity

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Readers want to hear scientists speak and meet them

NewScientist Live







What works and what doesn't (at least for my readers)

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Bad

- Something that happened last week (too old)
- Incremental discoveries (who cares?)
- Funding stories (universities care, readers don't)
- New appointments (universities care, readers don't)

Good

- Something that's happening now
- Monumental discoveries
- Never been seen before
- Issues that affect readers' lives (their health, where they live ...)
- Human universals (sleep, death ...)
- Mind-blowing
- Big questions we all ask (how did it all begin?)

Conclusions

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- Everyone wants an exclusive story
- Send me timely, relevant, interesting and quirky press releases
 - Even better don't send me press releases
- Get to know journalists personally and their publication
 - Lots of reasons why
- Not everything has to be a traditional print story
 - Video and photos are opportunities
- Invite journalists to visit your labs to find stories
- Readers want to hear and meet scientists in person
 - Make your scientists available
- It's a great time to be writing about science!