



10 principles for communicating science in the media

Jennifer Johnson
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Objective
What are we
setting out to
achieve?

Audience
Who do we want to
influence?

Evaluation
Did it work?

Message
What do we want
to say?

Tactics
How will we
say it?

1
**Support your
organisational
objectives**

Developing the story



2

**Engage senior management
in the process**

HELLO
my name is

3
**What's the
real deal?**

Magnetic Control over Liquid Surface Properties with Responsive Surfactants

Paul Brown, Alexey Bushmelev, Craig Butts, Jing Cheng, Julian Eastoe,* Isabelle Grillo, Richard K. Heenan, and Annette Schmidt

■■ Please check/add academic title acknowledgement? ■■ Surfactants responsive to temperature,^[2] CO₂,^[3] and light^[4] are well-known. For the first time ionic liquid surfactants are shown to be responsive, thus offering the potential to control emulsions simply by the application of a magnetic field. Although ionic liquids (ILs) containing metal complexes have been known for some time,^[1] it had always been assumed that the metallic centers were isolated, lacking long-range interactions and communication necessary to be magnetically active.^[6] Only recently have ionic liquids containing magneto-active metal complex anions, such as 1-methyl-3-butylimidazolium tetrachloroferrate ([bmim][FeCl₄]),^[7] been reported.^[7,8] These magnetic ionic liquids (mag-ILs) are especially interesting as they are molecular liquids, rather than typical magnetic fluids (ferrofluids) which comprise magnetic colloidal particles (> 10 nm) dispersed in a

4
Impact may not
always be obvious

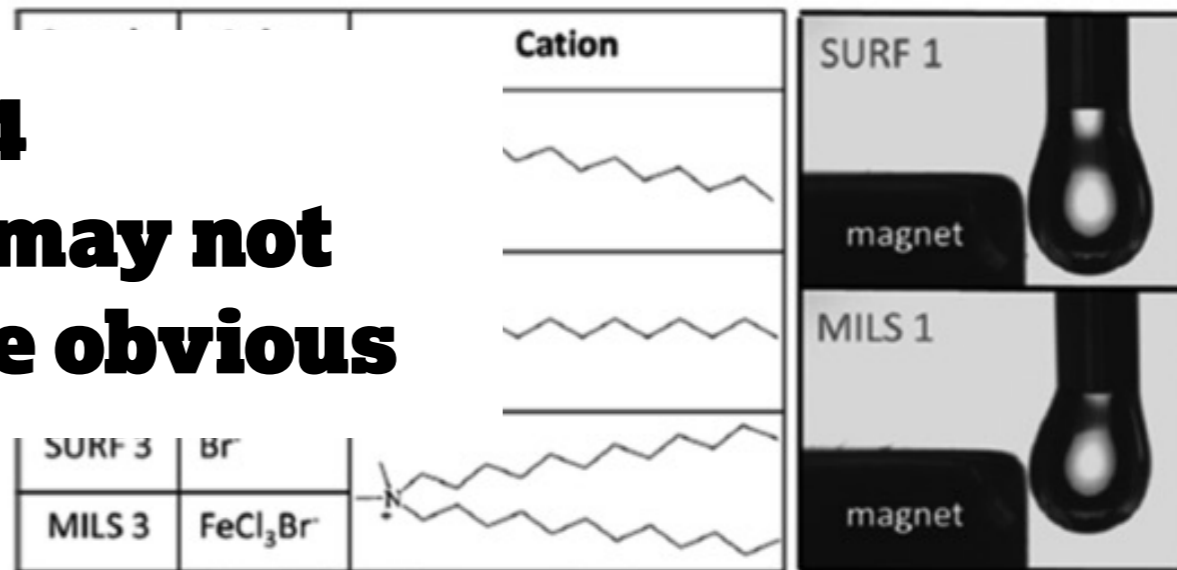


Figure 1. Left: Inert (SURFs) and magnetic surfactants (MILSs) studied. Right: Response of liquid droplets to the field from a 0.4 T NdFeB magnet. [SURF1] = 20 wt %, [MILS1] = 20 wt %.

colloidal systems. Now, magneto-responsive emulsions become accessible, which to date have not been realized for molecular liquids, but only with Pickering emulsions stabi-



Science & Environment

Magnetic soap could help in oil spill clean-ups

🕒 23 January 2012 | [Science & Environment](#)

An international team of scientists has demonstrated the first soap that responds to magnets.

This means the soap and the materials that it dissolves can be removed easily by applying a magnetic field.

Experts say that with further development, it could find applications in cleaning up oil spills and waste water.

Details of the new soap, which contains iron atoms, are **reported in the chemistry journal *Angewandte Chemie*.**

It is similar to ordinary soap, but the atoms of iron help form tiny particles that are easily removed magnetically.

"If you'd have said about 10 years ago to a chemist: 'Let's have some soap that responds to magnetism', they'd have looked at you with a very blank face," said an



A droplet containing the soap is attracted to the magnet at left

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Teen 'UK's youngest suicide bomber'

A West Yorkshire teenager is believed to have become Britain's youngest ever suicide bomber after reportedly blowing himself up in Iraq.

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🕒 4 hours ago

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🕒 2 hours ago

Features



From a media perspective



5

Take control of multi-party collaborations

Is this the end of hacking? Encryption technology uses light and quantum mechanics to protect private data

- **Quantum Key Distribution (QKD)** has been developed by the UK's **National Physical Laboratory**
- It delivers data using photons - the smallest possible packets of light
- QKD shares a key between two users that is based on the principles of quantum mechanics
- Secure system enables eavesdroppers to intercept data and transactions terminated
- Technology could be used to transmit encrypted data such as patient health records or payment information

By ELLIE ZOLFAGHARIFARD

PUBLISHED: 00:20, 24 April 2014 | UPDATED: 10:39, 24 April 2014



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A 'quantum leap' has been made in encryption technology that could help securely transfer sensitive data.

The technology - known as Quantum Key Distribution (QKD) – delivers private data using the smallest possible packets of light.

Data could include encrypted personal information, such as patient health records between hospitals, or payments between credit card providers and online retailers.

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The end of cyber snooping? Quantum Key Distribution (QKD) delivers private data using the smallest possible packets of light. It could be used to transmit encrypted payments between credit card providers and online retailers to prevent people's private information falling into the hands of cyber criminals (illustrated)

'Encrypted data is very secure,' Alastair Sinclair from the National Physical Laboratory (NPL) told MailOnline. 'Its main vulnerability comes from people working out or intercepting the key which allows it to be unencrypted.'

'QKD ensures that the key is transmitted securely. First the key is created and then data scientists can encrypt the data to send it from one party to the other.'

WHAT IS QUANTUM?

'Quantum' is defined as the minimum amount of a physical entity.

A photon is a quantum, for example, as it is the smallest divisible unit of light: a single light particle.

Quantum mechanics, also known as quantum physics, describes the behaviour of small

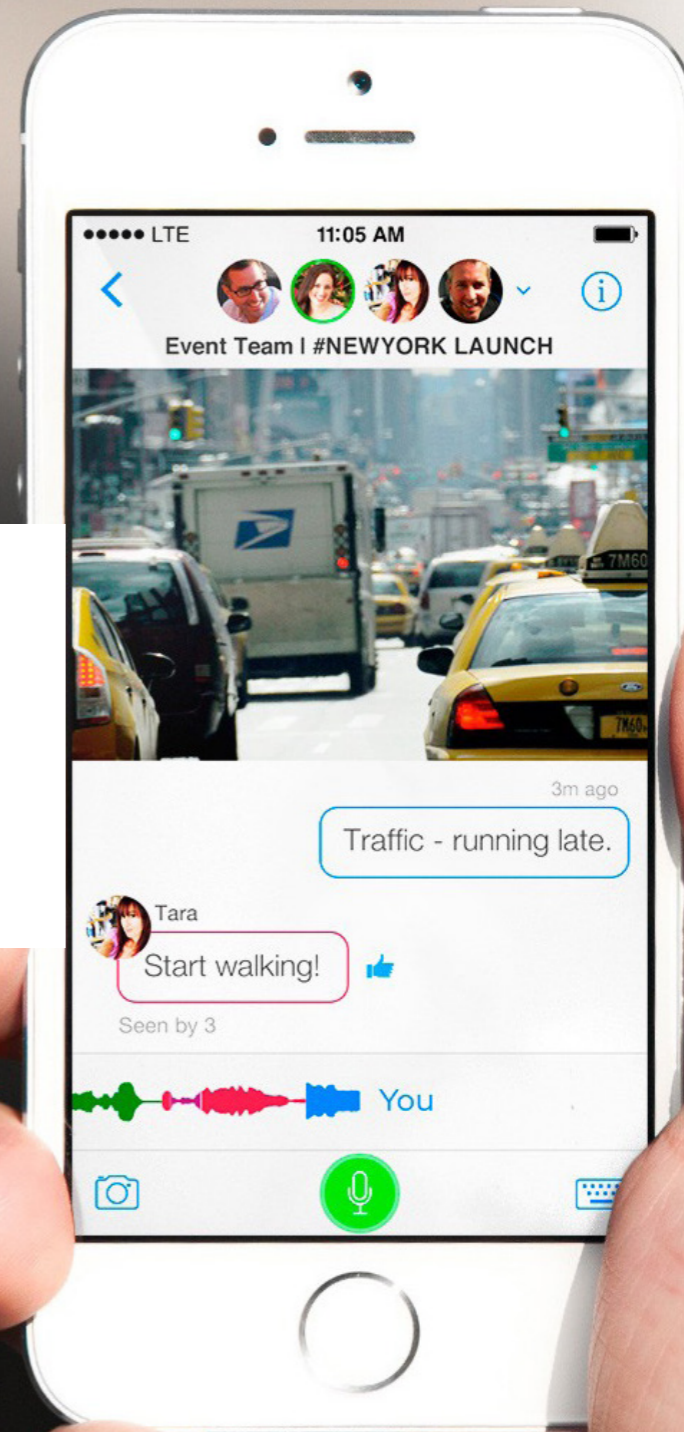
Front and centre

6

**Seek 3rd party
endorsement**



7 Avoid clichés



Placing the story

8

**Plan as far in advance
as possible**



Tech Videos



9
**Think outside of
the science pages**



Armourgel - smart, high impact armour for the older generation

Tuesday, February 25, 2014 - 02:18

Feb. 25 - A flexible, energy-absorbent material called Armourgel has been adapted to help mitigate the impact of broken bones. Armourgel's British designer says the material can be incorporated into conventional clothes, hard surfaces. Jim Drury reports.

▶ View Transcript



Technology sector The innovators

Scanner that analyses fluid could end 100ml liquid limits at airports

Heathrow and Gatwick test Cobalt laser technology that can obtain 'fingerprint' of materials including solids and powders



Paul Loeffen, chief executive of Cobalt Light Systems, demonstrates how its laser scanner works. Photograph: Graham Turner for the Guardian

Shane Hickey

Sunday 2 November 2014 12.59 GMT



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MacRobert Award: 11 innovative technologies that have changed the world

< 01 02 03 04 05 06 07 08 09 10 11 >



1969 joint winners: Freeman, Fox and Partners for the superstructure of the Severn Bridge and Bell's Burn for the Pegasus engine used in the Harrier aircraft

Science & Environment

30 October 2013 Last updated at 21:06

Empowering people: glasses win innovation award



The winners of the Siemens Stiftung "empowering people award" have been announced in Nairobi, Kenya. The shortlist of 23 simple, sustainable, innovations for the developing world included the Solar Kiosk - designed to bring power to remote areas. This kiosk - in Ethiopia - features charging points for phones and laptops, as well as a fridge, TV, and water filter.



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Images are key!

Thank you

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