Scientific Dissemination, Self-promotion and Legacy: An Insider's Insight

Long gone are the days of the lone researcher who discovers a new scientific truth, publishes the findings in a journal and simply returns to their bench with the applause of their peers ringing in their ears. We are living in the Information Age – a world where the internet, computers and smartphones are an essential part of our everyday lives. Digital technologies have changed every aspect of our lives – from the way we work and learn to the way we play and share our scientific breakthroughs.

The internet has transformed how our scientific findings are communicated and the way our data is shared. In many cases, technological capabilities are advancing faster than our ability to comprehend their full potential. Here, the Niche Science & Technology team describe some of the key approaches that will help you to exploit technology in the process of establishing your legacy. We summarise a few approaches and tools you can use to make sure your science gets noticed.

Copyright 2021 Niche Science & Technology Ltd., UK

Before you start

- Identify your speciality subjects and your target audience
- Build a network – join groups and editorial boards, support others
- Actively engage with your network
- Decide on your level of investment – time, budget, resource, scope, involvement etc.
- Set yourself a feasible target/goal and map out milestones

Prepare to succeed

- Create useful stuff and share what you have and what you know in various formats
- Collaborate with different groups and enlist supporters for your activities
- Become an information channel – share content through Linked in, websites, social media, blogs, forums and discussion groups
- Keep a record of your activities and measure your progress/success

Key Insights

People working in the sciences aren't generally perceived as extroverts. Many would agree that scientists can often be introverted, bookish and perhaps even a bit awkward. However, some scientists seem to be more outgoing, finding it easier to get noticed, promote themselves and thrive in todays media-driven culture. If you want to be heard over the noise you need to engage with the process of tooting your own horn (no one is going to do it for you).

Mastering the art marketing yourself is particularly important for those that don't have an established 'reputation.' For example, young scientists with limited networks who are eager to kick-off their careers. It can equally apply for new research projects and/or teams promising important findings that will need broad dissemination and recognition when they come to fruition. There is no doubt that your ability to get your work noticed will impact on your scientific legacy.

There are simple and effective ways for unassuming and self-effacing scientists to compete successfully with their more loquacious counterparts through the application of a few straightforward activities [1]. By seeing self-promotion as a scientific challenge that needs to be addressed in a logical and step-wise fashion you can achieve a level of recognition that will benefit your research and yourself.

Beware the bubble

The concept of the filter bubble has emerged with the rise of social media. The concept says that internet search algorithms selectively provide audiences with the material that the software determines their users would 'like' to see – and that is based on past searches. Thus, audiences have any new content they see or search for 'filtered' and they enter a state of search engine-induced intellectual isolation.

The same is true for any information you wish to share, you get stuck in an echo chamber (where the same information and opinions are constantly repeated). To make the most of your promotional activities you need to break the bubble boundaries. There is no simple solution to escaping your bubble, it takes hard work and requires application of a variety of approaches.

What is your brand?

Before you start tooting-your-horn you need to establish your brand, an 'image' that you would like the outside world to associate with you. The act of associating a product or service with a particular brand infuses all facets of our everyday life. We associate successful brands with an 'identity' that embodies a set of expectations and perceptions that the brand's 'owner' has engineered into the popular psyche. In the case of yourself, your team or your research programme your brand may, for example, focus on a scientific objective, leadership in a field or service you are providing. A brand needs to be believable and achievable. Base your brand on a 'position' you already hold or on a specific ambition you have been working towards. Cultivating your 'promise' helps your peers develop expectations about your work.

Be proactive. There is no point complaining about the destination from the back of the bus. Decide who you want to be, where you want to go and engage. You should capture the concept of your brand within a single minded proposition that ignites partners, informs briefs and serves as a rallying cry for your colleagues. Your brand should emerge as a persona with specific and consistent characteristics. It may encompass a visual identity or logo that your target audience can connect with (see Visual brand) and have a snappy name.

Share of voice

It is widely held that scientists work in a meritocracy. Many young scientists think that they simply need to do good research and recognition will follow. This just rarely happens in our media-obsessed world (it probably never did). Clearly, social communication skills, such as the ability to speak well in public play an important factor on the road to success (and it will probably remain so – see The power of vision) but in the current environment other factors come into play. A host of impactful tools to help you win share of voice are readily available to the introverted, modest and anxious.

For a truly competitive edge it's important to understand and use the concept of 'share of voice'. Simply stated, share of voice is about being heard above the noise. When utilising electronic media to overcome underdeveloped networks or shyness success will equate to the acreage of digital space you can stake out. This equates to the amount of online content you generate and conversations about your project you can initiate. In a digital environment, there are more competitors and more channels than you can imagine. It's important to consider all the different platforms and how you might engage with them.

Winning share of voice burns both time and resource. Identify the specific issues you are going to focus on (scope) and how much effort (resource) you are prepared to commit. With the fast moving nature of information technology your efforts of engaging must involve some form of daily activity. Your own vehicles will serve as the means by which you can communicate your key messages. Engaging with relevant materials from other authors will register you within your digital space. Be a team player, enlisting other 'like-minded' individuals and 'content creators' to support your cause, creating a web of interactions.

Understanding the four terms below is crucial to the success of your share of voice activities:

- Key messages – the points you want to communicate to your audience based on your findings, conclusions and opinions
- Vehicles – these are products (press releases, interviews, journals etc.) that communicate your key messages
- Channels – these are the different forms of communication (Twitter, LinkedIn, radio) you can use to disseminate your messages
- Networks – people who should be interested in your work and can further distribute your vehicles to other like-minded individuals

Key messaging

Messaging encapsulates who you are and what you are trying to say. It should communicate the specific points you want to register with your audience. The message should always hark back to your brand, their repetition will cement your brand and promote retention [2].

Messages can be developed for different purposes and audiences, such as speeches, fundraising campaigns or presentations. You should craft a set of short, standard phrases or paragraphs to describe your organisation, program or service. Thus, when you reach out to specific audiences, implement new campaigns or communicate about different programs, you will have the language ready. A well-crafted message will concisely and clearly highlight your unique characteristics, engage your target audience, support your mission and include a call to action. To develop messages that motivate and excite an audience you should consider what you want people to say about your work.

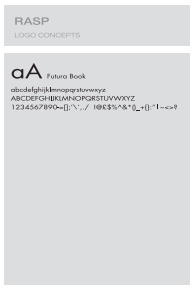
- Develop core messages that connect the dots between what you do and how it relates to your audience.
- Keep language simple and use analogies or personal stories to get your point across
- Make your messages believable and provide evidence to increase credibility
- Be consistent with delivery (particularly across platforms/channels)
- Ensure that each message reflects your brand – that is, who you are

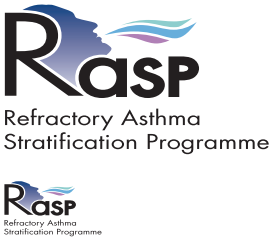
Highlight what is relevant to the issue and your audience, but be sure to be consistent in what you say about yourself or your organisation. This makes your messaging memorable and helps position you in the minds of your audience. Finally, remember that messaging changes over time – conceptualise how your 'brand' or your project may mature and evolve your messaging to facilitate its development.

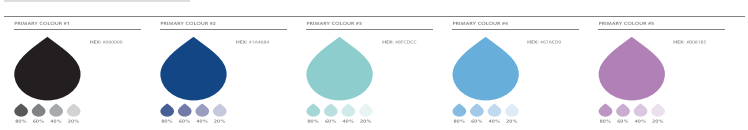
Visual brand

A few scientists have been able to capture their own image within their brand (Einstein, Newton, Darwin, etc.). With time and perseverance you may be able to achieve this yourself but establishing visual identity is perhaps more relevant for project teams and research collaborations. This can often be achieved through the use of a project or group logo to be used in all communications and supported internally and externally in varied forms such as letterheads, brochures and newsletters.

The logo often forms an important part of a visual identity. However, it should be combined with other characteristics such as a specific typeface, colour scheme and other design elements to create a visual identity that is instantly recognisable and memorable. A professionally managed visual identity integrates with other aspects of branding to support and project the brand as it evolves. Consistent and strategic use of visual branding helps build confidence and trust.







Vehicles

You have something to say and you have a story to tell (in a novel and informative fashion). You need to see this 'story' as your exploitable material and maximise its dissemination. You need to find different ways of using your story. Traditionally, scientists see their message vehicles as scientific manuscripts and abstracts, posters and presentations for scientific congresses. Leaving the restrictions of the academic arena behind (re-targeting), exploitation follows three simple rules: re-use, recycle and repurpose. When working with partners you can also add co-creation (working together to produce novel vehicles like white papers and opinion pieces). Another frequently used term is up-cycling: also known as creative reuse, it is the process of transforming the outputs of your work and unloved materials such as rejected manuscripts into new content better fit for the purpose of message communication in one or other channels. Remember to make your new content appealing with sexy titles [3] and stimulating visuals.

Vehicles don't create themselves, you need to create them. Establish certain thresholds for your activities (or risk spreading your resources too thinly). Define which vehicles you expect to create from your exploitable products, and which channels you want to use to broadcast these vehicles (to disseminate your messages). These can include:

- Institution news, newsletter
- Press releases and interviews
- Blog pieces, commentaries and opinions
- Website updates

Allocate an appropriate time/resource/budget that can cover the extent of your plan – expect to drive through the line. Be prepared to share evergreen content over the lifecycle of your project and 're-tweet' materials when it seems reasonable.

Maintain your flow of information (and the interest of your audience) by piggy-backing on the work of others. Echo other people's blogs on websites and through media channels like Twitter and LinkedIn. Invite conversations. Cross-reference your own projects (link to your project website, Twitter account, blog etc.) when reporting the findings of others. The secret of winning share of voice depends on your ability to enlist supporters. Give people good reasons to read and share your materials. Encourage others to echo your efforts through their own channels.

To support your promotional activities you must maintain visibility within your chosen communication channels. People accessing online content have short attention spans and hard won target audiences are easily lost due to lack of activity in any of your target channels.

Audiences tend to be locked into their information sources so expand your potential audience by opening up access to scientific manuscripts for example by writing lay summaries.

Exploit your evergreen content - evergreen content maintains sustained interest, it doesn't age or experience seasonable peaks and troughs. Remember to keep your evergreen content fresh.

Digital networks have an insatiable appetite for copy – it is unlikely you will be able to leave a mark on your own. Any mark you do make will be temporary and you will need to refresh it regularly. In the words of the poet Henry Wadsworth Longfellow:

"Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time"

The tide returns twice-a-day.

The scientific manuscript

The scientific manuscript is perhaps the most effective vehicle for your key messages and, as it is retained and readily findable within literature databases, is also a major contributor to your lasting legacy. Number of scientific publications has long been recognised as a measure of success and as such, publication in the scientific literature is the goal of most if not all researchers [4]. That is a lot of scientists beavering away to create publications. Estimates suggest that close to two million new articles are published each year [5].

In a world drowning in information, how likely is it that your research, however brilliant, will end up in front of the right people? You will not be surprised to to hear that many scientific papers go uncited, possibly even unread. What a waste of your work! Its time to embrace the new philosophy of 'get visible or vanish' [6]. Make sure you get noticed.

The table opposite provides a summary of the top ten approaches you can adopt to promote your manuscript taken from our recently published manuscript [7]. Dissemination of your research messages needs to be seen as a planned process that involves consideration of target audiences, identifying the settings in which research findings are to be received, and communicating and interacting with wider audiences in ways that facilitates uptake.

Top ten tips to promoting your manuscript

Rule 1: Work with dissemination in mind
Identify and create materials you can use in promoting your research to a wider audience. Aim to exploit these materials. Adopt a re-use, recycle, re-purpose and re-target mind-set. Give careful consideration to your titles and abstracts [9,10].

Rule 2: Deploy pre-prints
By posting a citable pre-print with your research results, you stake claim to your work. Other researchers can discover your work earlier, potentially pointing out critical flaws or errors, suggesting new studies or adding data that strengthen your argument.

Rule 3: Exploit the journal's resources
Take up offers from publishers/journals to provide/create additional materials to entice readers to 'dig deeper'. Detailed protocols and research data not only promotes more reproducible science, but also draws additional attention and encourages citations.

Rule 4: Liaise with your institution
Inform your institution's press office of pending publications [11]. Ask if they would be interested in developing a press release or a summary of your work to be included on their website or within in-house publications.

Rule 5: Use your networks
E-mail your network about publications providing links to articles. Ask colleagues to share the news of your publication [12]. Exploit all possible opportunities to promote your work at scientific/professional conferences. Don't forget to mention your work when talking with colleagues.

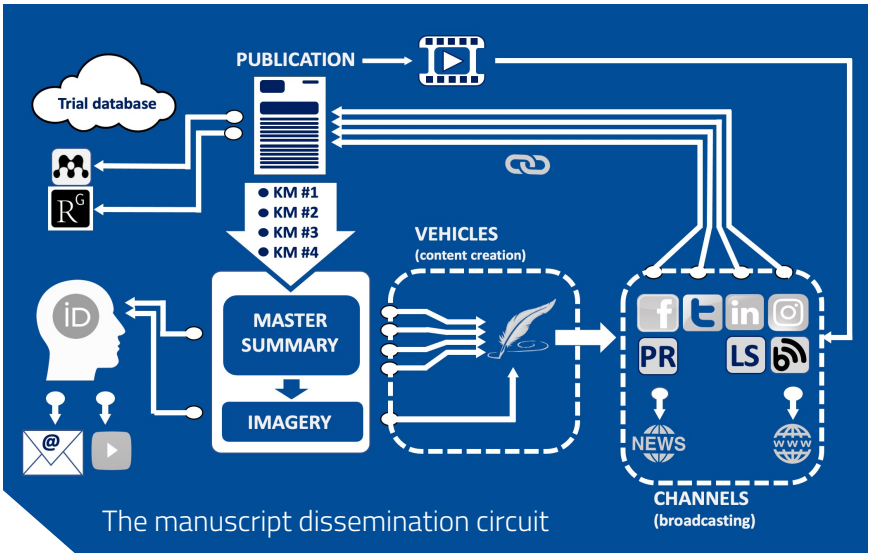
Rule 6: Collaborate
Sharing your research through scholarly networks is an excellent way to increase your reach and raise your visibility. Create and use an Open Research and Contributors ID. Record your successes on resources like ResearchGate, Mendeley and LinkedIn.

Rule 7: Enrich your content
Scientific publications use standard formal presentation formats describing your data. These dry, academic descriptions need to be 'enriched' when you are seeking to engage broader audiences. Create different 'vehicles' that can communicate your message on various levels.

Rule 8: Use Twitter and social media
Twitter and social networks are rich and reliable channels for exchanging highly specialised information. Twitter plays a significant role in scholarly information and cross-disciplinary knowledge-sharing and also contributes to the non-academic impact of scholarly research [13]. It is an excellent dissemination tool, but it is not a passive medium, it needs you to generate an audience.

Rule 9: Create a website and/or blog
Traditional scientific channels are conservative in their presentation. In contrast, blogs and self-run websites give you a good way of contextualising your findings and are a good means of introducing new research, conversations and initiating new collaborations.

Rule 10: Track your activity
Promoting your research takes time and you need to track which activity has the greatest effect on the reach, impact and/or legacy of your research so that you can focus your efforts. Altmetrics gather data from a variety of on-line sources (including social media, blogs and news outlets) and give a measurement of digital impact and reach [14].



The manuscript dissemination circuit

Innovative dissemination means preparing to go beyond traditional academic publishing (e.g., academic journals, books, or monographs) and meetings (conferences and workshops) to achieve more widespread research uptake and understanding. Success requires an integrated, multi-channel approach (see opposite). However, we should note that the best way to get your work noticed is to share it directly – make sure your article is published as Open Access (if you can afford it) [8].

Channels

Communication channels are the mechanisms by which your information is cascaded to the world. Most academic projects require the dissemination of information through traditional channels such as presentations at congress and workshops or published in scientific journals and this activity should be defined and pre-planned in your strategic communications plan.

Your broader dissemination activities will most likely be dependent on having material available to post. With this in mind, it is useful to define an 'activities' platform. This usually describes what you expect to do with each new research finding as it becomes available. This could involve preparation of press releases, submission of stories to news providers, tweeting and/or distributing the information in a newsletter to email to your network. Your plan should describe the key channels you plan to use and the best way to exploit them. Channels can include:

- Academic publishing (scientific articles, posters, reviews)
- Emails, newsletters and blogs (Mailchimp lists, networks)
- Videos and interviews (YouTube, blogs, podcasts)
- Social media (Twitter, Facebook, Nuzzel)
- News services (online web services Radio – local TV)
- Websites (ResearchGate, LinkedIn)

When planning your dissemination activities you need to understand the channels available to you and the barriers to access based on cost. There are three different channel types:

Owned channels –include websites, blogs or other web entities that you control. It is the base from which you look to build your online brand online, and its where you want your traffic to go to.

Earned Channels –cannot be bought or owned, it can only be gained organically, when content receives recognition and a following through communication channels such as social media and word of mouth. It often refers specifically to publicity gained through editorial influence of various kinds. It can include mass media outlets, such as newspaper, television, radio and the internet, and may include a variety of formats, such as news articles or shows, letters to the editor, editorials, and polls on television and the Internet.

Paid media –encompasses all external efforts that involve a paid placement. It can include direct advertising, branded content, and display ads. It often forms an essential component of revenue growth and brand awareness for all businesses who trade and operate online.

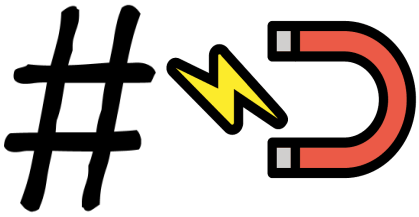
You don't have to use paid channels. Almost everybody uses email for communicating with customers, vendors and fellow-workers. Its speed and efficiency make it an ideal means to convey a message in an instant. What's more, a permanent record of the exchange is created, which can be referred to months or even years later. When done appropriately (as through a marketing service such as Mailchimp) you can even track what people do with the email. It is a great way of distributing press releases, newsletters and links to any online resources. However, most of us receive hundreds of messages a day. Although emails you send to team members will most likely be read, there is a good chance that your communication to distant peers will most likely be ignored or simply deleted.

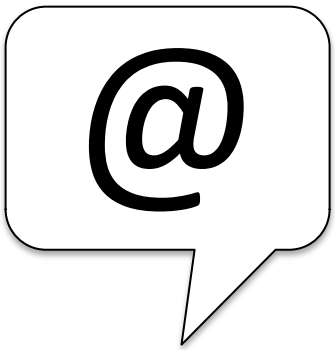
When you are feeding a variety of channels it can feel like you are conducting a high intensity dissemination programme. However, you need to serve each channel appropriately. Some channels like Twitter only become affective when you post relevant materials several times a day. Knowing when to post in each of your channels is an important way to stay ahead, find out the peak times to get more interactions and/or capitalize on quieter hours on social networks.

Promo protocols

Hashtags

Using hashtags (before a relevant keyword or phrase) with your social network postings gets twice the engagement than those without. Hashtags (#) direct your posts to potential audiences actively seeking information on specific topics, increasing the discoverability of your work. Not sure where to start? Check out www.Symplur.com/healthcare-hashtags for an up-to-date list of the most popular hashtags and topics that people are currently talking about in healthcare, including conferences, medical conditions, and diseases. You can use as many hashtags as you'd like but it's best practice to keep it to two or three hashtags per post.



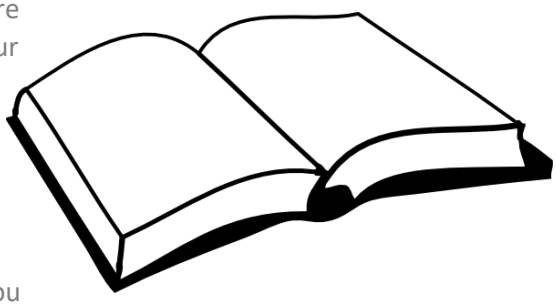


Mentions

Hashtags are an effective and easy way to discover and interact with top contributors who you may want to follow, possibly retweeting some of their posts. You can also mention people directly in your posts, perhaps a peer or new connection, by using the "@" symbol. This can be a simple hello, such as "@Niche great to meet you at #EUFEMED2021." Alternatively, show collaborations a peer or journal where your article has just been published, such as, "Excited to present on #Pharmac at #EUFEMED2021 with @Niche. Read my paper in @Journal http://bit.ly/shortenedlink." A quick tip, long URLs can be daunting, putting readers off clicking them. Create shortened redirect links for free through www.bitly.com and save characters on Twitter.

Secret sauce – tell a story

Good stories do more than create a sense of connection. They build familiarity and trust, and allow the listener to enter the story where they are, making them more open to learning and receptive to your messages. Good stories can contain multiple meanings so they're surprisingly economical in conveying complex ideas in graspable ways. And stories are more engaging than a dry recitation of data points or a discussion of abstract ideas. Authors draw readers into stories by putting them at the centre of the action. Clearly, any complicated science still needs to be explained once you have pulled the reader in with three dimensional characters. Equally, you can use metaphors to help lay readers.



Face-to-Face

Face-to-face meetings are powerful. They offer you the greatest opportunity to convince others of the value of your work. It is personal and by reading the person you are talking to (or simply by asking) you get immediate feedback. It is often advisable to use face-to-face meetings in conjunction with other channels to reinforce your messages. It's especially important to seek face-to-face meetings with newer contacts as technology can never match the power of a human connection.

As a shy person, it may be easier to communicate on a one-to-one basis if you have a clear idea of what you want to say? Make the most of your opportunity. Rehearse and use 'elevator pitches' to get your points across quickly and clearly. Have you prepared an elevator speech? A short summary used to quickly and simply describe yourself or your project and its value proposition. If you can make your conversation so memorable in those few seconds it may continue after the elevator ride, or end in an exchange of business cards or a scheduled meeting some time in the future.

Strategic communication planning

In a content-saturated communication space it is essential to ensure that your audience identifies your communications as being worthy of their attention. In terms of healthcare professionals and scientists establishing a reputation requires use of standard channels of communication:

- Manuscripts published in respected journals – primary and secondary
- Congress and workshops – abstracts, posters, reports, slides and presentations
- Grant applications and awards
- Concepts, discussion pieces and white papers

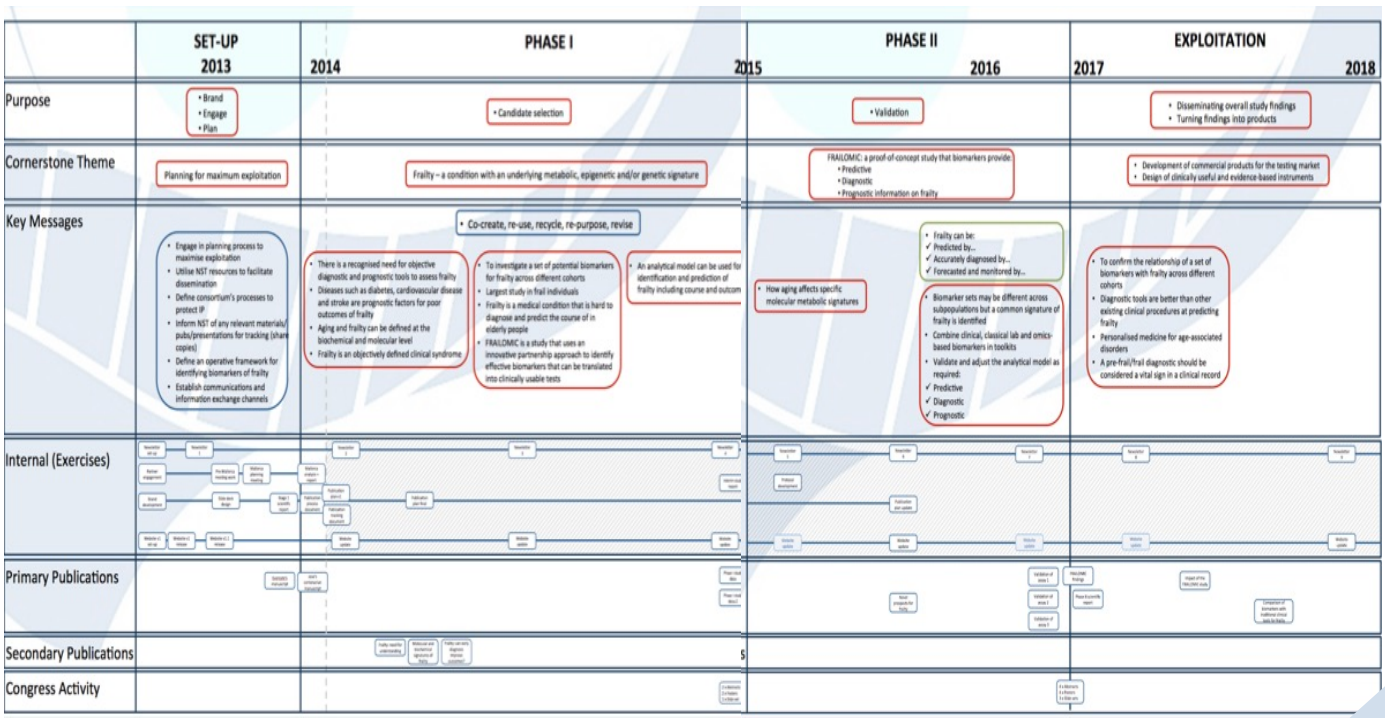
Academic vehicles often require a substantial investment of resource and time. Care must also be taken to use your data efficiently while avoiding any accusation of 'salami slicing' [15]. As such, it is critical to prepare a detailed plan of resource utilisation, particularly when your project involves multiple partners. These often call for implementation of publication plans or strategic communications plans (where consideration has been given to timing of publications and efficient resource utilisation to achieve key objectives). The content and format of these plans are discussed in detail in our Insider's Insight – Branding Science [16].

You should see your communications plan as a living document that frames all your communication activities, clarifies your priorities, target audiences, resources, channels and vehicles. The plan should incorporate details of key milestones (i.e., end of a study) and any satellite (non-academic) activities. Plot out your milestones on an activities map (see below) and plan to review activities in an annual summary.

Secret of success

Service providers who offer to support you with your 'on-line' promotional activities might lead you to believe that there is a simple formula for success. Believe it or not, this is not true. Don't expect your tweet, blog or post to suddenly 'go viral.' Many factors will influence the impact and perceived success of your promotional activities not least of all being whether or not your 'messages' fit with the current zeitgeist. Luck (mostly a matter of having the right story at the right time) will also play a role. However, there are a number of factors that will give your activities their best chance. These are:

- Be clear and concise
- Remain professional and credible
- Be consistent
- Tone and appeal
- Fulfil your audience's needs
- Tell a story/transmit a message
- Enlist supporters



Networks and target audiences

Your target audience is a specific group of people who are likely to be receptive to your messages through your . You need to build an interactive (non-passive) network, the most likely candidates will be people who are already in your address book. As existing contacts they are likely to share your pursuits, have some interest in your progress and be prepared to share distribute your news across a broader network. The more you know of the people in your network the better you can target your activities to them.

To increase your influence you need to increase the size of your network, reaching out to a diverse pool of people. Simply collecting business cards and attending events will increase the number of your contacts but it does not increase the likelihood that those contacts will benefit you in the future. To reap the benefits of your network you have to know how to get them working for you by giving them what they need. The most universally agreed upon networking tip is to help others first; they will return the favour. Think beyond your current needs, focus on becoming known and trusted; a long-lasting relationship is more beneficial to both parties. While seeking connections on Facebook, LinkedIn, Twitter and other online networking sites can become time drains, online networking is useful for strengthening connections. By posting Facebook or Twitter links to relevant articles, you can provide value to your virtual friends and show your engagement with pertinent business issues. Writing original articles or posting commentary keeps you on other people's minds and enables them to see how involved you are in your industry. It is an efficient way to continue a relationship with those you know. But online communication is not enough, especially for newer contacts.

The power of Twitter

What good reason has any rationally minded scientist got for being on Twitter? Surely it is a haven for the intellectually challenged and the vapuous? Not so – do not underestimate the power of Twitter. On Twitter you can build your brand. You can search-out like-minded bloggers and in following them be updated with what is going on in your field. Following people on Twitter often results in these people following you (about 1 in 3 people follow you back). When you start sharing information in tweets your network will start to grow of its own accord – building your audience and offering you the chance to escape your own filter bubble. You will have a receptive audience when you have something important to share.

There are many places on the internet that will advise you on how to get the best out of Twitter. The key point to remember is to stay true to your brand. Do not see it as a social service – follow the right people, only tweet relevant material, stay professional, always include some form of (catching) image or video, use hashtags and stick to your key messages. Identify the best time for you to tweet, plan to repeat your post and remember to fit your tweeting schedule into your strategic communication plan.

The true benefit it provides is that it often leads to in-person contact because people feel more comfortable initiating direct contact with someone they already 'know' electronically.

If you are working as part of a consortium, project team or collaboration you should encourage everyone to help broaden the dissemination network. To make the team feel comfortable about sharing these contacts it can be helpful to draw up a formal agreement that defines the scope of any engagement with their contacts. Similarly, find ways to continually recruit people to your network. Principles to remember when reaching out to potential new contacts:

Do:

- Be genuine to gain credibility and build long-term relations
- Feed the network (via Twitter, Facebook, emails, etc.) passing on useful information and demonstrating that you are engaged
- Ask contacts how you can help

Don't:

- Focus on getting an immediate response from a new contact immediately
- Hide behind technology and avoid face-to-face networking
- Forget to read your audience and fail to provide a personal approach

The power of visuals

Multimedia (podcasts, videos, slides, etc.) adds a new dimension to your research projects. Recognising their value, many publishers and journals encourage authors to create/provide supporting multi-media materials to accompany their published manuscripts. For example, correlations exist between the number of views of a video abstract gets and the number of reads/downloads [17]. Similarly, a graphical summary (e.g., a visual abstract, infographic, photograph or cartoon) significantly boosts engagement through online resources. You can combine a plethora of resources on free web-based outreach services like Kudos (www.growkudos.com). You should also use such resources in your wider dissemination activities. visuals make for great marketing. Why is visual stimuli so important? Because 90% of information that comes to the brain is visual and 40% of people learn better with visuals than plain text.

It is worth considering that the research landscape is changing. The contribution of video learning for young scientists has been increasing year on year and many of them are more comfortable absorbing information in this rather than other formats. Equally, busy researchers have found that videos and podcasts are good way of learning. With the increasing commercialisation of academic publishing many authors are asking, “How can I help my readers jump over paywalls and understand my work in just a few minutes?”

Photos and visualization:

You know what they say – a picture is worth a thousand words. Content with relevant images gets 94% more views than content without relevant images. Enthusiastic scrolling is the enemy of any communicator. Photos catch people’s eye and draw them into articles and blog posts, keeping them for longer. If you don’t have your own relevant images you can find free images from websites like Upsplash (www. unsplash.com) or Pexels (www.pexels.com). Also consider animated GIFs. You might argue that GIFs are more effective than photos because they contain action and movement. People also love data visualizations. Charts, graphs, and maps bring data to life in an engaging way and they are more likely to retain your message. Articles that contain charts and infographics show significantly higher reader engagement – up to 34%!

Infographics:

Liked and shared on social media 3-fold more than other any other type of content, infographics are the perfect blend of data, design, and storytelling. They make it easy to share complex information in just a few seconds, which is what you need to do to grab people’s attention. So, if you have data to back up your claims, along with additional visuals to incorporate, an infographic will do the trick.

Video (and podcasts):

Videos are powerful tools for engaging audiences. We know that over 60% of consumers are more likely to purchase a product after watching an online video, and video has an average lifespan of four years! That is an eternity when compared to the shelf life of a Facebook post or tweet. People spend more time on websites that contain videos and they help you build trust with your audience, so they are a great investment.

Video is an excellent means of communicating science messages. The popular adoption of television in society was quickly followed by the introduction of ground-breaking science television shows such as ‘The Sky At Night’ (1957), ‘Tomorrow’s World’ (1965) and ‘Horizon’ (1964) and programming has long been punctuated by science events such as the first moon landing (1969).

Video is a powerful way to communicate your science and we now have the necessary equipment in our phones and computers to make our own. Consider making a collection of videos that support your research for release on services such as YouTube or Vimeo as well as Linked in and Facebook. Interestingly, video content tends to float to the top of Linked In feeds. You may not know that YouTube is the world’s second biggest search engine. However, it doesn’t apply proscriptive search selection algorithms generally used by internet search engines like Google. As such, with over 30 million visitors per day, YouTube represents an untapped audience. Remember, that just because research videos are primarily intended for scientists doesn't mean lay men and school kids can't enjoy or benefit from them.

An interview with one of our Managing Director

Q What is the single most important factor for a successful dissemination plan?

A Noise. You need to collaborate with others. No single individual can sustain the level of copy generation necessary to keep a steady flow of new information. You must become the conduit through which news related to your field can flow. Echo high interest stories from other groups. You can use products like Nuzzel (www.nuzzel.com) to help create your own regular newsletters from Twitter feeds. Exploit different channels to distribute the same story. In the end it comes down to the effort you are prepared to generate a network and feed its voracious appetite for new and engaging material.

Q What do you find most frustrating?

A Lack of engagement. When you work with a group of people who share the same goals (for example co-workers in a research consortium) it can be disappointing when they appear not appreciate their role in programme promotion, dissemination and, ultimately, in tooting their own horn. You will need to develop a thick-skin – feedback is not always positive. Also attrition, despite your best efforts you will constantly be losing followers, especially if you can't keep them interested.

Q How do you get the most out of your activities?

A The amazing thing about the internet is that there is an infinite (almost) amount of information you can refer to. These may be created by you, curated by you or you may simply serve as a channel through which the information is provided. There are billions of internet users (more than ANY journal) all looking for content that might be valuable to them. Being the conduit through which people can access that information gives you the opportunity to direct them via your own content to information sources that support your key messages and/or cause.

Q How can I build audience engagement?

A People are always keen to share their opinion with you. Once you have a network of contacts and followers you need to keep them engaged by asking them questions. Questions and challenges provide the opportunity to start conversations. Those eager to engage with you can be converted into 'champions' or advocates to your cause. Simple online questions distributed through free online services like Survey Monkey (www.surveymonkey.com) can boost engagement.

Tools and metrics

Anyone working in research needs to create a Google Scholar profile and become active on ResearchGate, Linked-in and Academia.edu. You should use LinkedIn to establish your scientific r=credentials (qualifications and work history) and promote publications and awards. A You tube account can be used to distribute a video blog, while your own website can be used as a news hub to publish your stories. You can point your audience to these resources through Facebook and Twitter.

An important consideration when undertaking promotional activities is to monitor the success of your efforts. There are many ways in which you can capture metrics to get an idea of return on investment for your efforts – some methods are more useful than others. However, do not become engrossed in the statistics, they should only be used as a guide that you are having an effect and your efforts are working. You might also compare the success rates of different strategies – but remember, take the data with a pinch of salt, most likely you will be comparing apples with oranges.

Free to use tools include:

- ResearchGate
- MailChimp
- Mendeley
- ORCiD
- Survey Monkey
- Google analytics
- LinkedIn
- Twitter
- Altmetric, Plum analytics

And finally....

In a culture that is geared towards extroverts there are still ways that quiet but determined scientists can get their contributions seen. As the saying goes – 'on the internet you can be anything you want to be'. Times have changed, although the theory of recognition being given to those who make the most noise remains the same. In the past, a little bit of self promotion has gone a long way. One hundred and fifty years ago Thomas Edison convinced the world that he was single-handedly responsible for a host of technological breakthroughs. Watson and Crick equally swept the board with their claims of discovery. You don't have to claim glory or boast in the information age, there are some simple guides you should follow.

First, the process of dissemination and promotion should be closely managed to ensure message alignment, appropriate allocation of resources and milestone achievement. Second, you should track every piece of copy you create as well as where/when it was released. Third, you should plan to evolve your promotional activities as your project matures. Although your single minded proposition may stay the same you can expect your targets to evolve over time. A good strategic communications plan should be seen as a living document working to establish your legacy, not just for today or tomorrow but for years to come.

References

1. Brack P. Networking for introverts. Nature http://blogs.nature.com/naturejobs/2015/09/08/networking-for-introverts/ [accessed 11 Nov 2016].
2. Bowling JE. Impact of Repetitive Text Messages on Retention of Knowledge. J Contin Educ Nurs 2019 Sep 1;50(9):399-403 doi: 10.3928/00220124-20190814-05.
3. Putting you best foot forward: An Insider's Insight into what makes a great title. http://www.niche.org.uk/asset/insider-insight/Insider-Titles.pdf [accessed 10 March 2021].
4. Sharing Publication-Related Data and Materials: Responsibilities of Authorship in the Life Sciences. National Research Council (US) Committee on Responsibilities of Authorship in the Biological Sciences. Washington (DC): National Academies Press (US); 2003 [accessed 11 Nov 2016].
5. Altbach PG de Wit H. Too much academic research is being published. 07 September 2018 https://www.universityworldnews.com/post.php?story=20180905095203579 [accessed 12 January 2021].
6. Barton CJ, Merolli MA. It is time to replace publish or perish with get visible or vanish: opportunities where digital and social media can reshape knowledge translation. Br J Sports Med Month 2017 Vol 0 No 0:1-5.
7. Hardman TC, Krentz AJ, Wierzbicki AS. Ten tips for promoting your research. Cardiovasc Endocrinol Metab. 2020;9(1):30-35. doi:10.1097/XCE.0000000000000191.
8. Norris M, Oppenheim C, Rowland F. The citation advantage of open-access articles. J Assoc Inf Sci Tech. 2008; 59:1963–1972.
9. Annesley TM. The title says it all. Clin Chem. 2010; 56:357–360.
10. An Insider's Insight into Amazing Abstracts. http://www.niche.org.uk/asset/insider-insight/Insider-Amazing-Abstracts.pdf [accessed 10 March 2021].
11. Perfect Press Releases: An Insider's Insight. http://www.niche.org.uk/asset/insider-insight/Insider-Press-Releases.pdf [accessed 10 March 2021].
12. Annesley TM. The abstract and the elevator talk: a tale of two summaries. Clin Chem. 2010 Apr; 56(4):521-4.
13. Mohammadi E, Thelwall M, Kwasny M, Holmes KL. Academic information on twitter: a user survey. PLoS One. 2018; 13:e0197265.
14. Viney I. Altmetrics: Research council responds. Nature. 2013 Feb 14; 494(7436):176.
15. Smolčić VS. Salami publication: definitions and examples. Biochem Med (Zagreb). 2013 Oct; 23(3): 237–241.
16. Insider's Insight into branding science, http://www.niche.org.uk/asset/insider-insight/Branding-Science.pdf [accessed 10 June 2016].
17. Spicer S. Exploring video abstracts in science journals: an overview and case study. J Librarianship Scholar Commun. 2014; 2:eP1110

Get in touch

niche science&technology

+44 (0)20 8332 2588
www.niche.org.uk