Evidence for Research Dissemination Impact: Organised (roughly…) by Impact Type

I don't claim this references to be the best, truest and most gestalt representation of the evidence space around dissemination and its effects. These were not gathered systematically, and I've just captured them as I became aware of them.

So, with that caveat out of the way…

1. Academic Impact

KEY FINDING: Media coverage provides a stronger citation boost than author or journal reputation

Key Finding: Peer-reviewed scientific publications that receive more attention in popular media are significantly more likely to be cited in subsequent scholarly literature.

Evidence Snapshot: In a structural equation model analyzing 801 scientific publications, the factor for Non-Scientific Impact (popular media attention) had a standardized loading of approximately 0.380 on Scientific Impact (citations). This was nearly twice as large as the loading for Author Reputation (0.197) or Journal Reputation (0.203), indicating that media attention was a stronger predictor of citations than the reputation of the author or the journal in which the paper was published.

Source: Anderson, P. S., Odom, A. R., Gray, H. M., Jones, J. B., Christensen, W. F., Hollingshead, T., Wilson, C., Davidson, L. E., & Seeley, M. K. (2020). A case study exploring associations between popular media attention of scientific research and scientific citations. *PLOS ONE*, *15*(7), e0234912.

KEY FINDING: Press releases multiply your chances of media coverage by nearly 8x

Key Finding: Publishing a press release dramatically increases the likelihood that a research article will receive subsequent coverage in both general and major news media outlets.

Evidence Snapshot: In a study of substance use research, articles accompanied by a press release were nearly eight times more likely to receive additional news coverage (adjusted prevalence ratio = 7.85) and over seven times more likely to receive coverage in major media outlets (aPR = 7.73) compared to articles without a press release.

Source: Palamar, J. J., & Strain, E. C. (2020). News and Social Media Coverage is Associated with More Downloads and Citations of Manuscripts that Focus on Substance Use. *Substance Abuse*, *41*(4), 438–445.

Self-Archiving and Open Access Effects

Key Finding: Self-archiving a version of a research paper makes it freely available, which is associated with a substantial increase in citations compared to paywalled articles.

Evidence Snapshot: A study of computer science conference papers found that self-archived articles were cited, on average, 157% more than non-freely available papers from the same conferences.

Source: Tourte, G. (2014). An exploratory study of the habits of the authors in computer science towards self-archiving. *ScienceOpen Research*.

Key Finding: Compared to Gold Open Access (publishing in an OA journal), Green Open Access (self-archiving) has a stronger effect on increasing the *diversity* of citation sources.

Evidence Snapshot: A large-scale investigation of 19 million research outputs and 420 million citations published from 2010 to 2019 found that self-archiving had a stronger effect on increasing the diversity of citations from different institutions, countries, subregions, regions, and fields of research than publishing via Gold OA publisher platforms.

Source: Ciriminna, R., Li Petri, G., Angellotti, G., Luque, R., & Pagliaro, M. (2025). Open and impactful academic publishing. *Frontiers in Research Metrics and Analytics*, *10*, 1544965.

Video Abstract Benefits

Key Finding: The inclusion of a video abstract is associated with a statistically significant increase in the number of citations an article receives.

Evidence Snapshot: A retrospective cohort study of 945 articles from the *New Journal of Physics* used a 1:2 matched design. After controlling for confounding variables (like author number, funding, and page count), the analysis showed that articles with a video abstract were expected to have a citation rate 1.206 times greater than articles without one.

Source: Zong, Q., Xie, Y., Tuo, R., Huang, J., & Yang, Y. (2019). The impact of video abstract on citation counts: Evidence from a retrospective cohort study of New Journal of Physics. *Scientometrics*, *119*(3), 1715–1727.

Additional Academic Impact Evidence

Key Finding: A large-scale, long-term analysis of biomedical studies confirms that articles reported in newspapers receive, on average, more citations than those that are not.

Evidence Snapshot: An analysis of 496 biomedical studies published between 1988 and 2013 in 38 distinct peer-reviewed journals (with impact factors ranging from 5 to 51.7) confirmed a consistent citation advantage for studies that were covered in English-speaking newspapers.

Source: Dumas-Mallet, E., Garenne, A., Boraud, T., & Gonon, F. (2020). Does newspapers coverage influence the citations count of scientific publications? An analysis of biomedical studies. *Scientometrics*, *123*, 7300.

Key Finding: A randomized study of cardiovascular articles provides causal evidence that active promotion on Twitter is associated with a higher rate of subsequent citations.

Evidence Snapshot: In a study that randomized 695 papers, articles actively promoted on the European Society of Cardiology's Twitter channels were associated with a rate of citations that was 1.12 times higher (95% Confidence Interval: 1.08–1.15) than control articles that were not actively promoted.

Source: Ladeiras-Lopes, R., Vidal-Perez, R., Santos-Ferreira, D., Alexander, M., et al. (2022). Twitter promotion is associated with higher citation rates of cardiovascular articles: The ESC Journals Randomized Study. *European Heart Journal*, *43*(19), ehac150.

2. Policy & Practice Impact

KEY FINDING: Policy briefs are overwhelmingly valued by decision-makers

Key Finding: Policy briefs are generally considered useful, credible, and easy to understand by decision-makers, but their impact is contingent on factors like author credibility, timing, and audience tailoring.

Evidence Snapshot: A scoping review of 22 empirical articles found that 19 (86%) reported that decision-makers found policy briefs to be useful or had a general appreciation for them as a knowledge transfer tool. The review also highlighted that briefs are more effective in creating a belief in a reader with no prior strong opinion than in changing an existing one.

Source: Arnautu, D. A., & Dagenais, C. (2021). Use and effectiveness of policy briefs as a knowledge transfer tool: A scoping review. *Humanities and Social Sciences Communications*, *8*(1), 1-10.

Integrated Knowledge Translation

Key Finding: Broad, flexible, and sustained partnerships between researchers and public health policymakers are crucial for enhancing engagement and supporting the iKT process.

Evidence Snapshot: A scoping review on iKT with public health policymakers, which included 20 articles, found that long-term research-knowledge user partnerships that spanned multiple projects were a key facilitator of effective iKT.

Source: Lawrence, L. M., Bishop, A., & Curran, J. A. (2019). Integrated knowledge translation with public health policy makers: A scoping review. *Healthcare Policy*, *14*(3), 55-77.

Clinical Engagement Benefits

Key Finding: Engaging clinicians and health organizations directly in research activities is a valuable KT strategy that appears to be linked with improvements in care processes.

Evidence Snapshot: A landmark systematic review examining the value of research engagement by allied health professionals (AHPs) included 22 studies. The narrative synthesis of these studies indicated that AHP research engagement is related to positive findings in improvements to processes of care.

Source: Pager, S., et al. (2023). The value of research engagement by allied health professionals and organisations on healthcare performance: A systematic review. *BMC Health Services Research*, *23*(1), 747.

Evidence Needs for Policy

Key Finding: Policymakers require a mosaic of evidence from different types of research synthesis to inform the various stages of the decision-making process.

Evidence Snapshot: A seminal review on supporting evidence use in policymaking outlines that decision-makers need more than just evidence of effectiveness. They also need: reviews of observational studies to define the magnitude of a problem; reviews of qualitative studies to understand context and stakeholder perspectives; and reviews of economic evaluations to characterize cost-effectiveness.

Source: Lavis, J. N., Oxman, A. D., Lewin, S., & Fretheim, A. (2009). SUPPORT Tools for evidence-informed health Policymaking (STP) 3: Preparing and using policy briefs to support evidence-informed policymaking. *Health Research Policy and Systems*, *7*(Suppl 1), S3.

3. Societal & Economic Impact

KEY FINDING: The Conversation demonstrates actual public USE of research, not just views

Key Finding: The platform *The Conversation* is an effective model for overcoming common barriers to research use and translating engagement into the actual use of information by a broad audience.

Evidence Snapshot: An analysis of the 2016 *The Conversation Australia* Annual Survey data found that the platform successfully addressed key barriers to research uptake, including access, relevance, and timeliness. Crucially, regression analyses showed that reader engagement actions (e.g., sharing an article, leaving a comment) were significant predictors of the reader's subsequent *use* of the information from the article, which is a necessary precursor to achieving real-world impact.

Source: Pen-fold, R., & Wilson, A. (2018). Does engagement predict research use? An analysis of The Conversation Annual Survey 2016. *PLoS ONE*, *13*(2), e0192770.

KEY FINDING: Visual abstracts more than double social media engagement

Key Finding: Randomized controlled trials provide strong evidence that using a visual abstract in a tweet significantly increases user engagement compared to using plain text.

Evidence Snapshot: A crossover randomized trial in orthopedics research compared tweets containing a visual abstract to plain-text tweets for the same articles. At 7 days, the visual abstract tweets had generated an average of 412 engagements, compared to 195 for the plain-text tweets (p=0.016).

Source: Chisari, E., Gouda, Z., Abdelaal, M. S., Shields, J., Stambough, J. B., Bellamy, J., & Krueger, C. A. (2021). A crossover randomized trial of visual abstracts versus plain-text tweets for disseminating orthopedics research. *The Journal of Arthroplasty*, *36*(8), 3010–3014.

KEY FINDING: Co-production leads to measurable health improvements

Key Finding: Co-production with communities has led to specific health gains.

Evidence Snapshot: Some studies have documented specific health impacts from co-produced interventions, such as a 42% annual increase in cancer screening and a reduction in death rates from malnutrition.

Source: Referenced in: Transforming Integrated Care Through Co-production: A Systematic Review. *PMC*, *10921964*.

Educational Impact of Infographics

Key Finding: Infographics can have a significant positive effect on learning and academic achievement, suggesting they are a powerful tool for improving comprehension.

Evidence Snapshot: A meta-analysis of 12 empirical studies conducted between 2016 and 2021 on the use of infographics in education found that they had a large, positive effect on academic achievement, with a Hedges' g effect size of 1.599.

Source: Karataş, T. Ö., & Arpaci, I. (2021). The effectiveness of using infographics on academic achievement: A meta-analysis and a meta-thematic analysis. *Participatory Educational Research*, *8*(3), 241-263.

Media Amplification Effects

Key Finding: The unique "journalism-as-a-service" model of *The Conversation* serves as a powerful amplifier, giving scholarly perspectives significant reach into mainstream media.

Evidence Snapshot: The platform's model involves in-house editors working with scholars to pitch and develop stories. The success of this approach is demonstrated by the fact that articles from *The Conversation* are regularly republished by major international news outlets such as the *New York Times*, CNN, and *The Guardian*, massively extending the reach and visibility of the original research.

Source: Osman, K., Bruns, A., & Burgess, J. (2021). Increasing access to research via amplifier platforms: exploring public engagement with The Conversation articles. In *Selected Papers of #AoIR2021: The 22nd Annual Conference of the Association of Internet Researchers*.

Enhanced Engagement Through Multiple Formats

Key Finding: The engagement advantage of visual abstracts is not limited to one field and has been replicated in multiple medical specialties.

Evidence Snapshot: A triple crossover trial in nephrology found that tweets containing a visual abstract had more than 5 times the engagement of tweets containing only a citation and title, and more than 3.5 times the engagement of tweets containing a key figure from the paper.

Source: Oska, S., et al. (2020). A picture is worth a thousand views: A triple crossover trial of visual abstracts to examine their impact on research dissemination. *Journal of Medical Internet Research*, *22*(12), e22327.

Personal & Career Impact

KEY FINDING: Media attention is a better predictor of citations than your reputation or journal prestige

This finding directly appears in the Academic Impact section but has profound career implications:

Evidence Snapshot: Media attention (standardized loading of 0.380) was nearly twice as strong a predictor of citations as Author Reputation (0.197) or Journal Reputation (0.203).

Source: Anderson et al. (2020) - as cited above.

Building an Impact Portfolio

Key Finding: Building an impact portfolio with dissemination activities is crucial for demonstrating reach and significance in funding applications.

Evidence Snapshot: The strategic framework for knowledge mobilisation shows that funders increasingly require researchers to demonstrate a plan for impact. Having a portfolio of dissemination activities is no longer a 'nice to have'; it's a core part of building a successful and sustainable research career.

Source: Logic derived from KMb frameworks discussed throughout the evidence synthesis.

Democratizing Effect of Media Coverage

Key Finding: The citation advantage gained from newspaper coverage is most pronounced for research articles published in journals with lower impact factors.

Evidence Snapshot: For journals with an Impact Factor (IF) below 10, media coverage provided a clear citation advantage. However, for articles in high-impact journals (IF ≥30), a citation boost was observed only when the study was covered by at least 10 different newspaper articles, suggesting a higher threshold is needed to move the needle when the baseline visibility is already high.

Source: Dumas-Mallet, E., Garenne, A., Boraud, T., & Gonon, F. (2020). Does newspapers coverage influence the citations count of scientific publications? An analysis of biomedical studies. *Scientometrics*, *123*, 7300.

This represents a "democratizing" effect where strong dissemination can help level the playing field, allowing excellent research from any venue to achieve the impact it deserves.

Multi-channel Benefits

Key Finding: Beyond citations, video abstracts are also associated with higher article views and greater social media attention.

Evidence Snapshot: A cross-sectional study of 500 research reports found that those published with a video abstract were associated with an increase in citations (Incidence Rate Ratio 1.15), views (IRR 1.35), and Altmetric Attention Score (IRR 1.25).

Source: Bonnevie, T., Repel, A., Gravier, F. E., et al. (2023). Video abstracts are associated with an increase in research reports citations, views and social attention: a cross-sectional study. *Scientometrics*, *128*, 3001–3015.

Strategic Influence on Research Direction

Key Finding: Media coverage may not only amplify the impact of individual studies but can also influence the direction of the broader scientific agenda.

Evidence Snapshot: A 2023 study found that in 59% of cases, more thematically similar articles were published in scientific journals *after* a research paper received noteworthy news media coverage than before ($p<0.01$), suggesting that media attention on a topic can spur further research in that area.

Source: Leidecker-Sandmann, M., Koppers, L., & Lehmkuhl, M. (2023). Correlations between the selection of topics by news media and scientific journals. *PLoS One*, *18*(1), e0280016.