Collaborative behaviors, traditional practices

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IOP Publishing and Research Information Network (RIN) release new report on information practices in the physical sciences.

While cross-border and cross-disciplinary collaborations are breaking down subject siloes across the physical sciences, a culture of traditional and DIY information practices still holds sway among scientists when it comes to the curation, management and publication of formal research findings.

That's the headline take from a new report that examines how physical scientists find, use, share and disseminate research information - and specifically how their information practices are changing as a result of new digital technologies.

"Our latest findings are based on a survey of nearly 6,000 scientists around the world - a much broader view of scholarly communications in the physical sciences than any previous study," explains lead author Ellen Collins, a Senior Research Consultant at RIN.

The survey found that 70% of respondents had collaborated formally with researchers outside their own department in the last five years, with a further 16% collaborating informally.

"The picture we see is one of flexible researchers moving outside defined boundaries to meet the needs of a specific project, or to follow a research question as far as they can, even when it takes them beyond their core area of expertise," notes Collins.

At an individual level, the report identifies a widespread preference among physical scientists for building personal collections of research articles, with 87% of respondents storing the last article they read electronically (and 29% storing a paper copy as well).

"Despite all the money being spent on repositories, and preserving content in the 'cloud', researchers are still making personal electronic libraries," explains Collins. "The most popular storage method, by some way, was storage on a computer or laptop."

Collins adds: "Whilst it's unsurprising that there's no such thing as a 'typical' physicist, what did stand out is the universal need to collect, own and manage research information. The methods of acquiring information may have changed, but the underlying behaviour certainly hasn't."

On dissemination, peer-reviewed journals remain the gold standard for sharing formal research outputs in the physical sciences, with 79% of respondents commonly sharing research findings, data or code through traditional journal publication.

"No other platform is as popular for sharing formal research outputs," says Collins. One-to-one emails were selected by 41% of respondents and personal or institutional websites by 30% of respondents, but it seems likely they were chosen as a way to raise awareness of formal findings published in journals.

RIN also asked researchers about their priorities over the next 10 years. Funding pressures, collaboration and research impact emerge as the big themes, with open access to data and public engagement of less concern.

The report is published today ioppublishing.org/img/news/RIN … practices-report.pdf .

Provided by Institute of Physics

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