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TRENDS IN NEWSROOMS 2019

#3

Media Labs

WORLD EDITORS FORUM

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#3: MEDIA LABS

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About the Report

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This report is the third of the 2019 series covering Trends in Newsrooms.

It reflects the increasing establishment of media labs, worldwide, to help solve some of the pressing problems facing newsrooms and media organisations.

It will provide guidance to anyone considering setting up a lab and an insight into some of the outputs achieved.

The report is based on four years of research on Media Labs conducted by a range of partners. Supported by WAN-IFRA's Global Alliance for Media Innovation, this investigation was produced by a core research team from Pontifical Catholic University of Rio Grande do Sul (PUCRS) and the University of Central Lancashire (UCLan).

The research

+ 4-year research

+ 123 active labs mapped

+ 40 lab leaders interviewed

+ 53 lab leaders surveyed

+ 29 different countries

Since 2015, the research team has interviewed over 40 labs and studied their practices, outputs and motivations through observation. These approaches have provided a rich seam of data to allow the research to better understand day-to-day practices, strategic motivations and metrics.

The research identified active labs in 29 countries but there is a geographic bias with a heavy concentration in North America (United States and Canada) and Europe. Looking for Labs targeting media research and development and/or media literacy from any kind of institution, we identified:

North America: 45

Europe: 44

Latin America had 26 active media labs mapped. We also found initiatives in Asia, Australasia and Africa. We were only able to map four in Africa (Civic Media Lab, Kaya Labs- former Independent Lab, Social Media Lab – or "SIMElab" and Journalism and Media Lab – JamLab) and four in Asia (Aljazeera Interactives – AJ Labs, Asahi Shimbun Media Lab, IRIB R&D – former New Media Lab and Mediati). This relatively low number is in part due to geographical and, in some cases, language barriers.

This study is a work in progress: if a lab isn't on the list at the back of this report, let us know via email to **ana.nunes@pucrs.br**

The quantitive research was led by co-author Ana Cecília Bisso Nunes, who is finishing her PhD thesis on Media Labs – a joint-doctorate at Pontifical Catholic University of Rio Grande Do Sul (PUCRS, in Brazil) and University of Beira Interior (UBI, in Portugal). She used a quantitative approach, which provided data covering 123 operating labs across industry and academia. Surveys in three different languages (English, Spanish and Portuguese) provided 53 lab leaders' perspectives on labs; yielding broad data to allow a fine-grained analysis of this increasingly widespread media phenomenon.

Five takeaways from Trends in Newsrooms #3

Labs are a rapidly increasing global phenomenon

Charged with innovating products, processes and people, labs exist across the globe. Their number is also rapidly increasing. More than 85% of mapped active media labs were established from 2007, and 67% of them, or 82 labs, were created between 2011 and 2018.

Labs look beyond their organisation and industry

Publishers globally are creating labs to explore new areas and experiment; enable them to meet key business targets and to open their organisations up to new ideas, technologies and working practices. University-based labs are strengthening ties between research and practice, through R&D. Both outside and inside news media publishers open innovation is key, with labs working as media and journalism startup incubators and acceleration units.

Small interdisciplinary teams have space and time to think differently

Most media labs have up to 15 team members working as a part or full-time staff, many have fewer. Interdisciplinary innovation is common throughout all labs, with almost 70% of surveyed labs have journalists among their teams along with information technology (IT) and related fields. Multiple skills combined with multiple approaches (such as using design thinking or other use-centred approaches) to create new solutions to newsroom, organisational or industry challenges.

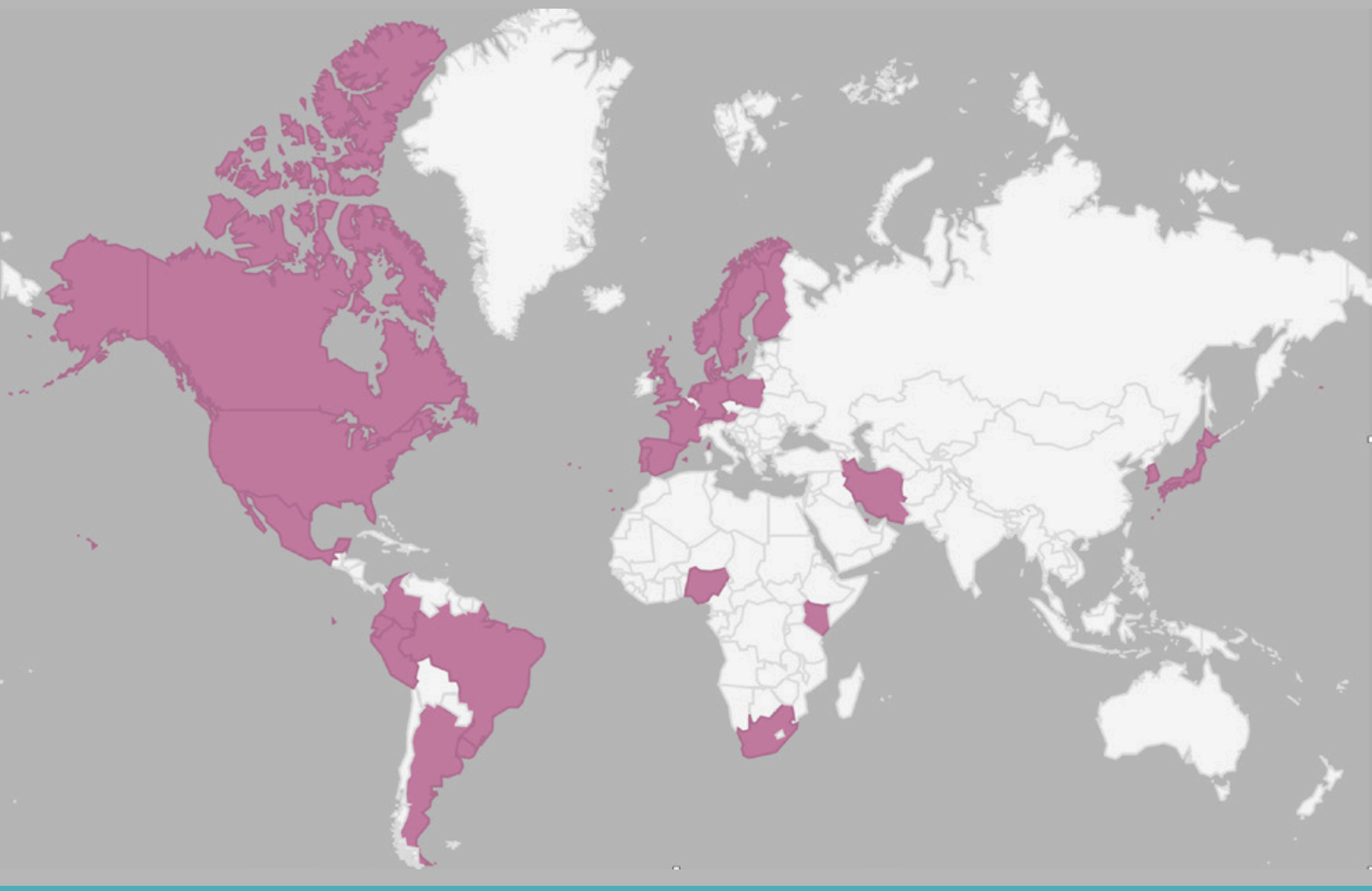
Creating new perspectives on experimentation and learning

Labs are based on experimentation principles: prototyping, iterating and practicing before connecting with the market. They also prompt attitudinal change, favouring trial and error and 'failing forward', which is a new perspective to an industry prone to immediacy and used to controlling process, deadlines and publication. Labs can help to build a bridge between academia, industry, NGOs and wider society.

Media labs horizon-scan future innovation structures and trends

Labs, or similar initiatives, serve a key future proofing purpose. They, and similar initiatives, will continue to anticipate, analyse and prototype emerging technologies, equip people for internal and external change and legitimize alternative practices and technologies. Emerging from technological and societal changes, these innovation initiatives seem to be the key to better develop an innovation culture in an industry in need of new solutions.

Map of surveyed Media Labs



Introducing Media Labs: innovating products, practice and people

The last decade has seen media labs emerge as a hub of experimentation and innovation. They have been created to build new products and services, to trial new ways of working and training, and to tackle the challenges arising from industry-wide digital transformation.

But the idea isn't new.

'Labs' – as a centre of knowledge creation – have existed across multiple sectors for decades, and in some instances – centuries. Now, journalism is making the construct its own to help fuel innovation and meet the challenges of a sector that has experienced a significant and sustained period of flux.

Media labs exist within news publishers such as the *Wall Street Journal*, Deutsche Welle and the BBC, and are now a global presence. They span every continent. Sometimes located within publishers, sometimes not. For example, Ubilab and OjoLab in Latin America; The Lenfest Local Lab and NJ Mobile News Lab in North America; Media Lab Bayern and Stibo Accelerator in Europe and in Asia, Australasia and Africa *Asahi Shimbun* Media Lab and Mediati.

But no lab is the same. 'Media labs' exist in many different forms as well as places.

They tend to focus on three broad issues: developing and innovating **products**, **practice** and **people**. Labs tackle these themes in multiple ways. Some use agile structures to create and rollout products efficiently and effectively, other labs combine start-ups and legacy media to create new products or processes, some are independent from publishers and instead incubate and accelerate new ideas and businesses. Some are concerned with trialling or rolling out innovation methods. Others exist in academic institutions, targeting teaching innovation or research, or both. Some labs centre on journalism exclusively, others innovate journalism as a temporary or infrequent focus. There are also labs focused on media literacy activities, which, by running courses and seminars, help audiences to navigate through information. The picture is a diverse one.

NEWS LABS AT WORK: OjoLab, in Peru, developed new storytelling formats. An example is the interactive feature, **The war over water**, which uses cartoons to tell the story of a conflict between a mining company and the farmers of Cocachara (Peru).
See page 18

What is a media lab?

Defining them can be challenging. For example, some structures that call themselves labs aren't concerned with innovation and/or experimentation. So, we have selected data based on labs that focus on innovation, media and, as far as possible, journalistic activity.

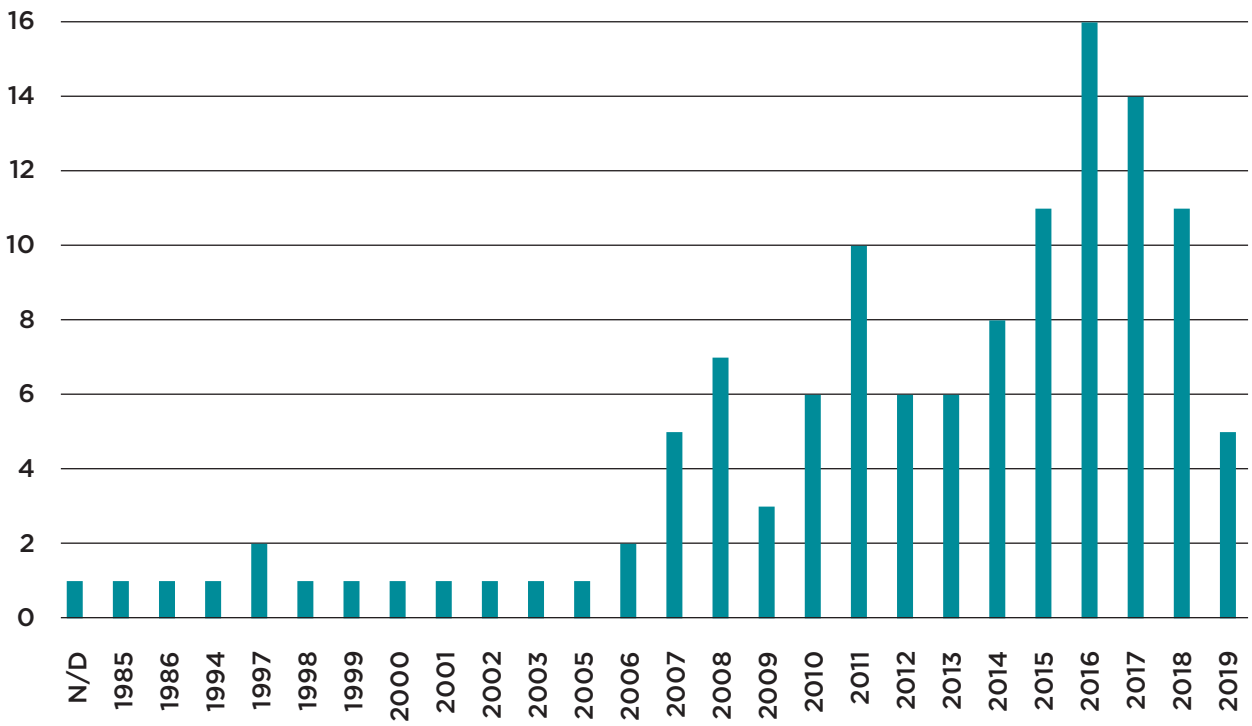
These types of labs typically relate to one of these **key goals**:

- Product development for either income generation or efficiency
- Creating new processes and skills
- Prompting attitudinal change
- Generating social impact beyond the organisation or institution

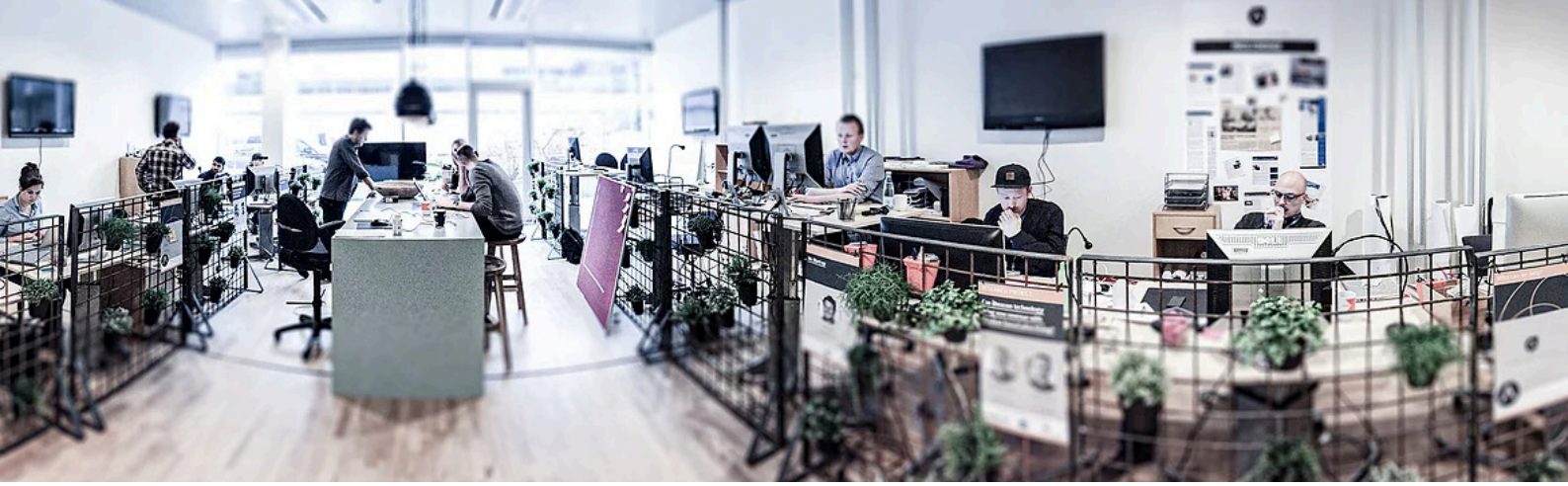
Labs don't last forever

Labs that have closed their doors in recent years, such as *BuzzFeed* Open Lab (2015 to 2017) and the *Guardian* US Mobile Innovation Lab (2015 to 2018) raise the question of longevity. Is a lab a temporary solution to accomplish a specific goal – or a permanent structure that aims to generate social and economic impact, and boost income and efficiency? Lab life cycles differ due to factors such as organisational culture, financial sustainability and target goal(s).

When were the labs created? *



* 123 labs mapped



The Stibo Accelerator is founded by Stibo A/S, the owner of news industry software solution providers CCI and Escenic. The initiative is based in Højbjerg, Denmark, and supports students and startups by allowing them to explore new trends and technologies while providing a connection to a wide network of industry partners.

Lab hosts and structures

Lab structures are diverse: for example, within **industry** BBC News Labs developed from a series of 'hack' events designed to open up the institution to new ideas into a unit that produces a range of products and services, engages with external collaborators and stimulates innovation throughout the BBC's newsrooms and beyond through utilising an open innovation approach. France's *Sud Ouest*'s Théophraste is a different type of a lab. Set up as an incubation unit in their hub in Bordeaux, it hosts start-ups that develop new products and services. It also benefits *Sud Ouest* by helping to fuel a culture of innovation.

University-based labs also demonstrate a wide range of incarnations:

- **Research and development labs** centred on co-creating products and services for storytelling (Digital World Research Centre, UK, Open Lab, UK),
- **Academic research centres** based exclusively around scholarly work covering journalism and innovation (MiLab at the University of Vienna, Austria),
- **Student experience innovation units/ experiences** to equip journalism graduates for the industry of the future. Examples include the Media Innovation Lab at Texas, which encourages students to work with peers from a range of disciplines to create novel products and services for their local community, and DMJX at the Danish School of Media and Journalism in Copenhagen, which takes the form of a makerspace, allowing students to collaborate to build their own products and services (and also doesn't call itself a lab!).

Outside news media publishers and academic institutions we find **incubators and accelerators** that support start-ups and entrepreneurs. Like Théophraste, these structures, which either accelerate concepts to launch or nurture young businesses, are developing within the news media ecosystem. One example is Media Lab Bayern. Funded by local regional growth funds, it helps tech start-ups to catalyse their ideas and concepts, and connects them to wider networks to grow and thrive. Standalone innovation can also be tied to NGOs and/or public institutions, and others based on consortium models, i.e. mixed funded by universities, media companies and other investors.

Labs structures are related to four main topics: host institutions, innovation spaces, team structure and funding models. Common hosting institutions are universities and media companies, but one can also find labs focused on media innovation as standalone initiatives. Similar structures can exist in different hosts, and similar hosts can house different structures.

Innovation spaces usually take form as separated in-house R&D units, incubators or accelerators, as well as dedicated academic locations focused exclusively on developing new products, services and/or promoting other kinds of innovation or media literacy programmes.

There is not 'one size fits all' model, but multiple ways to approach the structuring and hosting a lab, depending on the resources and aims it has. Here are some examples:

Internal units with dedicated staff in a media company

- *The Wall Street Journal* R&D unit (US): since 2018 the multidisciplinary internal team has worked across the newsroom to develop new computational approaches to empower journalists with machine learning and artificial intelligence resources. Besides the full-time staff, the team hosts visiting fellows including academics, researchers and graduate students.
- BBC News Lab (UK): focuses on developing products and services for newsrooms throughout UK public broadcaster the BBC. Set up in 2012 as series of hack events to spur innovative activity with a range of collaborators, this open innovation structure has now solidified into a core team of over 20 with editorial and technical expertise and academic backgrounds ranging from journalism, business, economics, arts, design, information technology (IT) or related fields.

Internal units with partially and/or fully dedicated staff in academia

- Media Maker Space/DMJX (Denmark) – launched at The Danish School of Media and Journalism in Copenhagen in 2017 to promote collaboration with its community. The innovation space provides a place to experiment that stands apart from the classroom. There, students can work across skills, functions, and disciplines and with people outside of the school. The Maker Space focuses on user-driven innovation by embracing user-experience and co-creation.
- Media Innovation Studio (UK) was set up in 2012 at the University of Central Lancashire's School of Journalism, Media and Performance as an action research centre and learning lab. It now comprises of a group of multidisciplinary academic professors and PhD students with shared interests working on a wide range of funded projects, such as Google DNI Fund, Arts Council Wales, Erasmus+ and Innovate UK. Their user-centred work is based on relationships with communities, industry and international partners.
- UBILAB (Brazil) was established in 2011 by Pontifical Catholic University of Rio Grande do Sul's School of Communication, Arts and Design -Famecos inside the University's Tech Park, located in its main Campus in the South of Brazil. Structured around projects funded by media and tech companies, the lab has a partially dedicated team of professors and undergrads, masters and PhD students. Ubilab acts as a bridge between media companies and academic investigations, targeting applied R&D.

Internal units with partially and/or fully dedicated staff in a non-commercial setting

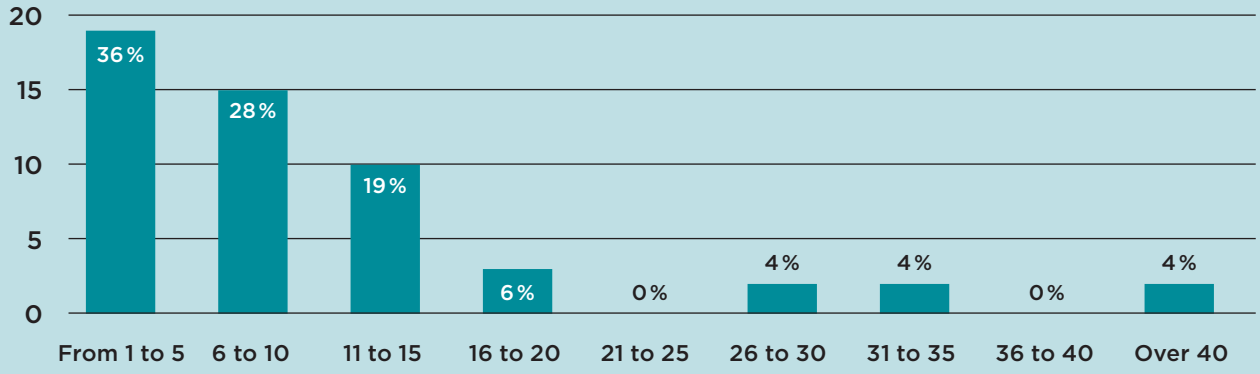
- The Lenfest Local Lab (US) launched in 2018 as an initiative of the Lenfest Institute for Journalism, a Philadelphia-based non-profit organization. It experiments with news and information products through a cross-disciplinary team of developers, designers, analysts and journalists. The lab focuses on products that help citizens learn about and connect with their communities, testing location and interest-based products along with new ways to enable citizens to connect with journalists and with each other.

Dedicated teams catalysing/mediating innovation as standalone initiatives or consortium models, in a commercial, independent or academic setting

- Media lab Bayern (Germany) is a publicly-funded Lab that accelerates start-ups, creating an innovation hub

How many people work in a lab? *

Team size varies depending on the goal and structure, but most initiatives rely on a small group of people of up to 15 members working as a part or full-time staff and coming from a variety of backgrounds.



* 53 labs surveyed

for digital media and journalism. It hosts events, runs media start-up fellowship programs, summer schools and offers R&D fellowships.

- NYC Media Lab (US) unites New York City-based companies, researchers and students to drive digital media development by creating an 'open innovation ecosystem'. The goal is to generate research and development, knowledge transfer and talent across all of the city's campuses. Established in 2010, the consortium includes New York City Economic Development Corporation, School of Visual Arts, New York University, Columbia University, The New School, CUNY, IESE, and Pratt Institute.
- OjoLab (Peru): Established in 2016 by OjoPublico, an investigative journalism company in Peru, OjoLab hosts a series of training activities for media professionals, academics, students and civil society. Activities span investigative journalism methods, digital tools, database construction and analysis, news app development, new narrative formats, fact-checking and journalistic business models.

Media lab hosts *

A vast majority of labs are based at universities, but there are a growing number inside media companies. In fact, in Europe, those are the majority (40 %, or 18 labs), while in Latin America, those are rare (16 %, 4 labs).

	Global distribution in %
Media companies	31 %
Universities	46 %
Independent labs	13 %
Consortiums	10 %

* 123 labs mapped

Why build a lab? Goals and strategies

When setting up a lab, multiple motivational factors are at play. A common thread is a strong entrepreneurial (or intrapreneurial) spirit, particularly in identifying an innovation gap to be exploited. These gaps could be around an organisation's ability to produce or support processes, products or people.

Existing structures are often inadequate to transform products or people. Some have individuals who want to create new products, content or ways of working, but don't have the space, capacity or method to realise their ideas. This is true of labs that sit in media organisations and academic settings.

Other motivations:

Catalyse organisational change

Shift attitudes and structures to a more agile way of operating and demonstrate that alternative approaches can be beneficial from both revenue and operational perspectives.

Instil organisational learning

Labs allow organisations to adapt and develop their institutional knowledge. For universities, they also create educational opportunities that aren't available elsewhere in a syllabus.

Change and realign attitudes

Through learning, labs also serve to shift attitudes. Some labs talk of instilling leadership and entrepreneurial instincts into individuals or areas. Others suggest that catalysing work between different skills helps foster different perspectives on shared problems. This feeds into broad attitudes throughout the organisation or student/academic community.

Leverage new, near-market technologies

Labs translate emerging tech into usable services and products. Open source tools, VR, mobile, Internet of Things, data and AI are all central areas for labs' development work and are all being adopted for journalism. One missing factor is the development of new technologies: labs mainly adapt existing systems, rather than doing formative R&D.

Experiment with new types of content

Where else would editorial be able to create internet of things experiences or 360 immersive experiences? Offering a specific area for invention and creation, labs generate new story forms without explicit and immediate commercial delivery pressures.

Create a safe space for innovation

A physical space is often an important element for labs, offering a different way to work. Open plan, flexible, rustic and permeated with post-its is a purposefully different space to create purposefully-different ideas and solutions.

Develop new business models

Labs can be key in generating or understanding new or emerging revenue streams – combining experimentation and rapid development with commercial pragmatism, and the development of new income for their organisation. A heavy focus on design thinking, and the acute commerciality of this approach, demonstrates this. Equally, the focus on economic growth for incubators, start-ups and universities has a direct correlation with business model innovation.

Primary purpose of media labs *

Training activities for media professionals and / or media literacy programs for the audience	**7.5 %**
Promotion and development of startups and / or new companies	**15.1 %**
Exploration of new multimedia narratives and/or data bases exploring	**24.5 %**
Development and launch of digital applications and technologies	**24.5 %**
Research and theoretical or applied discussions, aiming at the production of patents, new products, procedures or market opportunities, and may also aim at the elaboration of scientific articles	**28.3 %**

* 53 labs surveyed

Knowledge Transfer

For research-focused academic labs, transferring knowledge out of the institution and into a realm where it can be exploited is key. Research labs are geared towards developing pre-commercial research to an exploitable state.

Promote social and economic change

Labs can be connected to filling a social gap, as a main target or a complementary one. It can take form in a wide range of activities, such as accelerating new start-ups in a specific field, developing new products or processes, or promoting media literacy programs.

Open innovation

Open innovation describes how firms pull in ideas and technologies from outside to develop new products, services and spinouts.

Many labs pursue an open innovation model: they facilitate cross-disciplinary creation, encourage new ideas and working practices, and pull new technologies into organisations – either through hosting start-ups or multiskilled teams.

The development of media labs over the last decade in particular is a classic example of how the industry has looked outwards for new technologies and approaches to help solve the challenges it faces.

Setting up the lab: what do you need?

What, practically, do media managers need to start a lab?

A core mission: being able to articulate a fundamental aim can help the lab be understood by their organisations and their wider community. This helps the lab team gain traction and hit the ground running.

Institutional backing and buy-in: explicit backing of a lab's aims and processes is key. This enables and legitimises the lab, which sometimes can be seen as exotic, other or detached.

Defined deliverables and outputs: understanding what a lab is for, and sometimes what it is not for, is key at start-up.

Being able to measure success or failure: A lab can have multiple roles and outputs but being able to measure the success of these is fundamental in justifying a lab's continuation. Metrics are key, and leaders would be wise to consider them carefully, but also use them to prompt freedom of enquiry and experimentation.

An operating budget, some staff and a network: Most labs have some dedicated staff rather than a completely loose network, and all have some form of budget. The lab's network is critical – it enables ideas and technologies to enter it, and it offers a way to test, share and potentially scale its outputs. Understanding the ecosystem around the lab is critical.

A well-adjusted attitude to failure: failure is fine, as long as there is learning. Understanding labs don't always generate game-changing products is important, but other benefits must be recognised as being of equal value. Increasing institutional knowledge and understanding what doesn't work can be a founding motivation.

Ultimately, it is possible to combine all the various influences, motivations and requirements into a simple outline of a new lab's heartbeat: an entity that can achieve things existing people, structures and places cannot.

NEWS LABS AT WORK: Frankenstein AI is a project of Columbia University School of the Arts Digital Storytelling Lab. It reimagines Frankenstein as an artificial intelligence. See page 18

Tools and methods

How does a media lab innovate? Assembling a team, understanding core motivations and potential metrics are vital components, but what does the team or collective actually do?

Fundamentals

Our research uncovered a range of activities, but many revolved around the core principles of:

- harnessing multiple skills to innovate
- gathering user input and feedback to make innovation more relevant
- getting products to their end-users efficiently and effectively
- generating new knowledge and embedding learning

From the data gathered, there are key tools and methods that companies, universities, start-ups, accelerators and incubators use. These sit within several themes:

1. Innovate quickly and learn from users

Labs with a strong emphasis on commercial activity innovate by using processes that develop products or services at pace, and with users in mind. This human-centred approach manifests itself through several specific tools or approaches.

- **Design thinking:** Many labs use design thinking, or a version of it. Created by IDEO and Stanford University, design thinking has evolved over the last 40 years into a method to create concepts and products that meet user and business requirements. Our research suggests that, over the last decade, it has become a standardised practice within multiple labs.
- **Agile:** Themes of rapid development and commercialisation are also present in labs that use agile method to project manage and develop products in an evolutionary and iterative way. This need to innovate quickly and effectively can also be seen in approaches such as Eric Ries' lean method, with its focus on build, measure and learn.
- **Lean:** Some labs speak with great enthusiasm about Design Sprint, which seeks to take a multidisciplinary team from the identification of a problem to prototype to user feedback within four days.

2. Expand innovation into the crowd

To gather influences, ideas and solutions from the widest-possible base, labs use multiple methods to maximise input from their networks.

- **Adobe Kickbox:** For labs that look to harness their entire organisation, Adobe Kickbox is a way to capitalise on ideas and inspiration from the entire firm. Providing employees with a sealed box containing post-it, pens, and, perhaps most importantly, a pre-paid credit card. Kickbox allows individuals to develop their own concept beyond an initial thought into a proof of concept.
- **Hacks:** A well-tested method for drawing people to problem-solve and prototype at pace, hacks are deployed regularly by labs in both commercial and academic settings.
- **Design sprints:** Run by small teams and involving input from within the organisation or 'experts' and 'users' beyond it, sprints pull in valuable information for the design team to work with.

- **Incubation and acceleration:** Théophraste at Sud Ouest regional newspaper in Bordeaux, France, demonstrates how publishers are using incubation as a tool to instil an innovative mindset and give the publisher a commercial advantage. Start-ups work out of a dedicate space to develop their business. Publishers benefit by being exposed to start-up working cultures and have the advantage of seeing new technologies and solutions before the rest of the market. Incubation is helping early stage or pre-formed businesses, and acceleration involves getting successful start-ups to scale.
- **Maker spaces:** A flexible space where students, journalists and technologists and communities can come to create or co-create within a community context. Maker spaces are a growing phenomenon in cities and towns throughout the world, and journalism is beginning to look at how they can be adopted.

3. Deeper dive: academic R&D

Academic institutions with a research focus adopt a number of methods and tools not readily seen in more commercial settings. They share common themes of user-centred approaches, and seek to solve problems or capitalise on opportunities:

- **Research through design:** Applied research – i.e. generating new knowledge through doing – aims to create a range of knowledge during an innovation process. A team's and their end-users' reflections and insights are captured and analysed to improve knowledge and the innovation outputs.
- **Ethnographies:** To generate deep insights, some academic labs use ethnographic studies of users and their requirements to better meet demand, and solve problems as observed rather than imagined. The emphasis here isn't perhaps on speed of prototyping, but of creating highly relevant responses to real-world environment.
- **Co-creation and participatory design:** Although co-creation spans industry and academic locales, it emerged from an R&D perspective. It suggests that by involving users throughout the innovation process, the final outputs are more relevant and useful. The degrees to which outputs are co-created by participants depends on the context and capacity of those involved.

Tools: **Kickbox** allows individuals to develop their own concept beyond an initial thought into a proof of concept.

Can labs do long-term?

Our researchers realised that, particularly within commercial settings, innovation labs were focussed on rapid innovation using existing technologies. Sprints, hacks, lean start-up and agile working all point towards rapid innovation as a central trend. This raises two fundamental questions: what is long-term for media labs, and where does the longer-term, formative innovation come from?

Some methods – although associated with quick production – do not limit themselves to short-term perspectives. For example, lean approaches can see each short-term output be connected with a medium or long-term vision.

The picture here is challenging as it involves navigating rapid development, an understanding of what long-term is (30 months or 30 years!) and how the labs perceive themselves at being at the leading edge of innovation.

A potential risk is that labs are so concerned with immediate productisation, they focus on implementing products rather than taking a more transformational approach: one that could generate more relevant and meaningful innovations that are ahead of the technology curve, rather than outputs that are chasing it.

What timescales does your lab mainly focus on? *

Short-term projects/solutions, i.e. innovations that can be easily implemented by companies in the daily media routine	**22 %**
Medium-term projects/solutions, i.e. they can be implemented in media routines as long as adjustments of skills, resources or processes are made.	**27 %**
Long-term projects/solutions, i.e. they need significant adjustments of skills, resources and / or processes to be adopted in the media industries on a daily basis to be implemented in media routines.	**12 %**
Medium- or long-term projects/solutions, but the solutions are fragmented into short-term planning to enable its gradual implementation.	**39 %**

* 51 labs surveyed

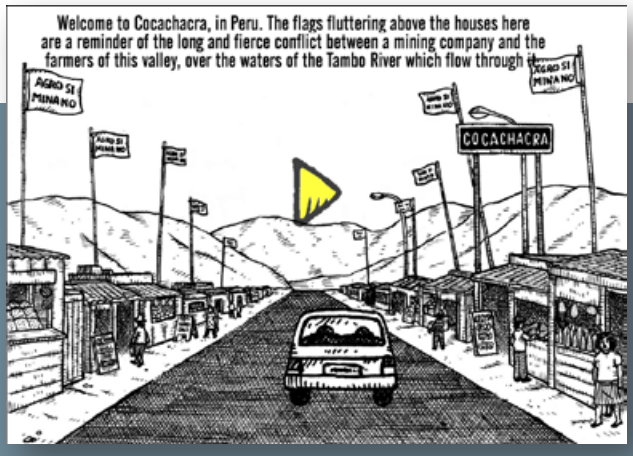
Outcomes and success factors

Media lab outputs are wide and diverse. For labs centred on the news and/or media industry, new narrative forms, media tools that improve processes and platforms for consuming or producing media content are common outcomes. Solutions that mix media with arts or other disciplines are also found in labs with a broader view of media. In some cases, the innovation can appear as a wider solution, proposing new relationships between media companies and new entrants. Here are a few output examples:

New narrative forms:

The war over water

Created by OjoLab (Peru), the feature uses elements of graphic novels to take the reader through an interactive experience about the conflict between a mining company and the farmers of Cocachara (Peru), over the waters of the Tambo River. OjoLab encourages innovations in journalism by promoting training activities for media professional, academics, students and civil society. See images below.



The war over water project, created by OjoLab (Peru), uses elements of graphic novels to depict the conflict over the waters of the Tambo River.

Frankenstein AI

An example of a broader media experience from Columbia University School of the Arts Digital Storytelling Lab. Frankenstein AI reimagines Frankenstein as an artificial intelligence. It is comprised by a network of projects around the narrative, aiming to provoke exploration around possible AI futures. See image to the right.

Media tools that improve processes:

InVID fake video news debunker

Facilitating fact-checking – a plugin that promises to make verifying videos and images more efficient. Created by Agence France-Presse Medialab R&D and been redesigned within the Horizon 2020 EU innovation action WeVerify.

TimelineJS and StorylineJS

Building interactive timelines and annotated, interactive line charts in a simple way – Created at Northwestern University Knight Lab, TimelineJS is an open-source tool for building interactive timelines. Engadget, CNN and other media outlets use the tool for news content, particularly during 2016, when it was launched. StorylineJS allows users to build an annotated, interactive line chart.

New platforms for consuming or producing media content:

Hyper Local News in Urban Space (Stibo Accelerator)

Using E-Ink displays, project displays hyper-local news stories in a public space where the story is most relevant. It was tested with Nordjyske Medier (regional media outlet from Denmark).

New media business and startups:

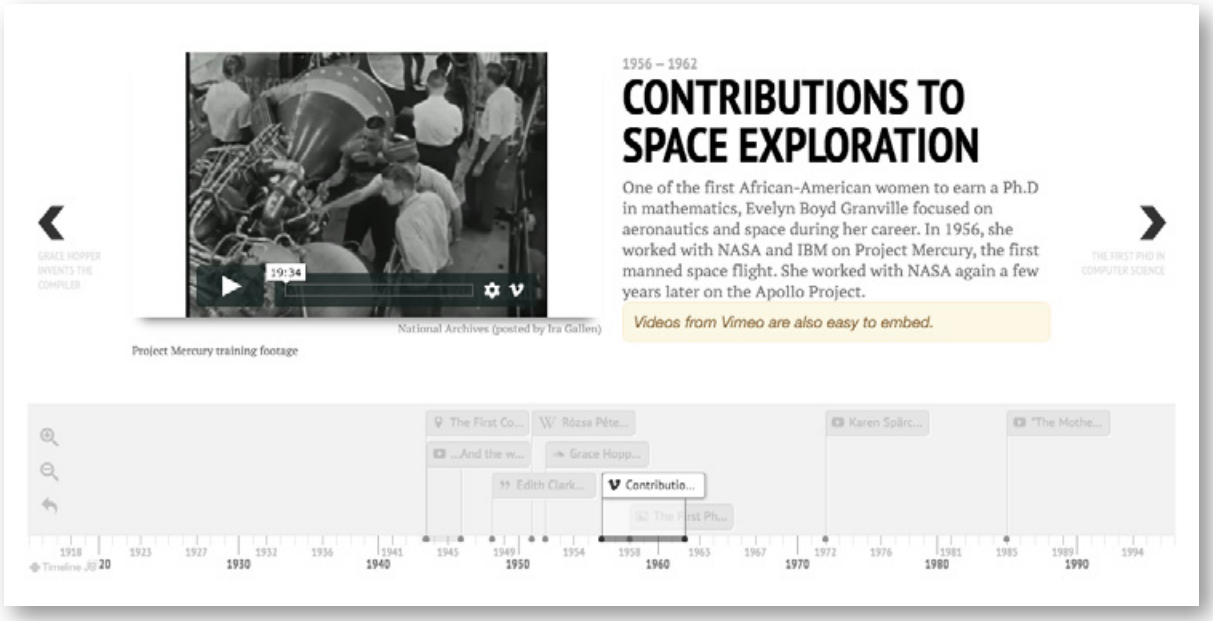
Volt Data Lab

The Brazilian startup was a result of OrbitalLab, an initiative from the John S. Knight Journalism Fellowships at Stanford promoting innovation in journalism. Volt Data Lab is a data-driven research and analysis agency – an example of a new business created from a lab initiative.

Wider solution, proposing new relations between established media companies:

The Ecosystem Model of Supporting Local News

Developed by Local News Lab at the Democracy Fund, the initiative argues that the traditional model of journalism – heavily relying on advertising and competition – is, mostly, no longer workable. The unit promotes innovation by supporting and connecting the many players in their local news region. The model encourages and enables journalism collaborations to test alternative revenue models and to reconnect with their communities.



NEWS LABS AT WORK: TimelineJS is an open-source tool, launched in 2016, that makes it easy to build interactive timelines. The tool was created at Northwestern University Knight Lab, and many media outlets around the world use it for news content. See page 18

Challenges and potential pitfalls

A lab's lifespan is dependent on its goals, but also how it deals with challenges. Here are some common ones to keep in mind:

Corporate media culture

Time expectations differ. For instance, a long-term strategy can be seen as a year, while a medium-term could be just six months. Media labs have to deal with an immediatism corporative culture, one that is highly focused on processes and has difficulty adapting. It can therefore be difficult to prove the value of media labs to investors and stakeholders who are not used to innovation pace and risks.

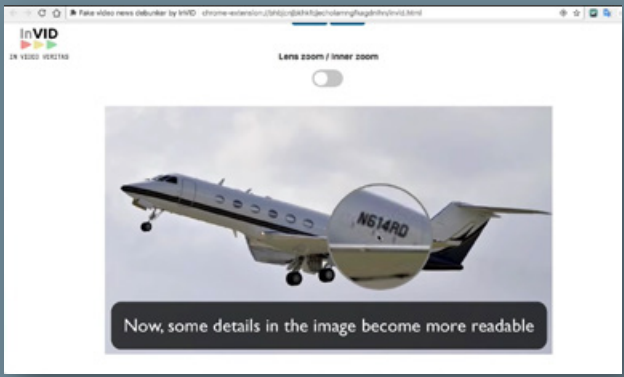
Financial sustainability

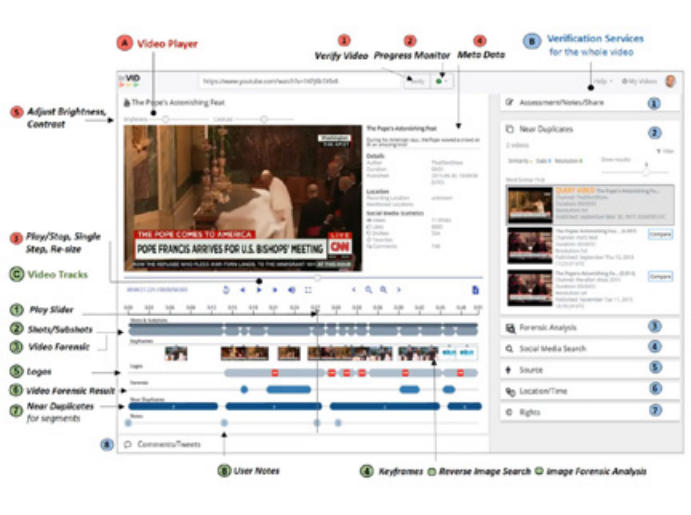
Even if employing a mixed funding (private and public) strategy, maintaining a high-performance interdisciplinary team is costly. Media innovations are also seen as high-risk products and processes, not guaranteeing a return in a short-time period (even if it can in a medium or long-term). As such, most labs employ a small team strategy. Media labs also experience an industry-wide trend of limited investment into a firm's future sustainability.

What do media lab leaders see as biggest challenges? *

Corporate media culture	45 %
Financial sustainability challenges	43 %
Implementation of innovation culture in the context to which the lab is related to	39 %
Interdisciplinary team/Team integration	32 %
Costs for innovation's implementation	29 %
Difficulty of innovation scalability	27 %
Integration of research with the market and vice versa	19 %
Pressure against time	16 %
Attractiveness for pros from different areas to work with media innovation	14 %
Lack of IT knowledge	10 %
Lack of business knowledge	10 %
Other	10 %

* 51 labs surveyed. Lab leaders could select multiple options.





NEWS LABS AT WORK: InVID fake video news debunker – a plugin that promises to make verifying videos and images more efficient. See page 18

Interdisciplinary team/ team integration

As cross-disciplinary units, media labs deal with team members from different professional and academic backgrounds, concepts, working styles and ideas. Integrating a team with different skills and professional languages/frames of reference should be considered when managing a media lab. Journalists normally work in newsrooms with other journalists. Media labs demand the development of an interdisciplinary culture, which can be challenging for those involved.

Implementation costs and scalability

Implementing a new process, product or business model can cost time and money. It is not always easy to scale. If the media lab's focus is on learning and experimenting, this shouldn't be a problem. If it is not, scalability should be embraced since the beginning, connected with business goals and future strategies. Another strategy is using a 'Lean' approach of fragmented delivery cycles to fail fast and innovate.

Why are some labs discontinued?

Discontinuing a lab can sound like a failure (and sometimes, it is), but it can also mean the lab played its full role or achieved its goal. During our mapping process, we found out over 30 media innovation labs that aren't operating anymore. There must be many more. However, they are hard to track, as websites are shut down and digital traces are deleted.

Some media labs are created to spread an innovation culture within the newsroom. If this is the main target, they are only a temporary transitional structure. However, when the goals are related to a medium or long-term approach, looking for future markets, the lab tends to have a more permanent character.

BuzzFeed's Open Lab for Journalism, Technology, and the Arts is an example of a discontinued lab. Launched in 2015, it closed in 2017. According to a report in Poynter, BuzzFeed's San Francisco bureau chief Mat Honan wrote a memo to staff stating that "it makes more sense to have engineers and hackers integrated directly into the newsroom, instead of having them in a lab".

However, if developing an innovation culture through a lab can be challenging, deploying this mindset directly in the newsroom can be even more difficult. Amanda Hickman, former BuzzFeed Lab director, saw some downside to losing the lab, telling the Global Investigative Journalism Network that no longer having the learning record is a loss.

What's next?

The rapid uptake of labs as a way of innovating is now present throughout the industry on a global scale. Their ability to catalyse new products, processes or (re)skill people means they enable digital transformation.

But that doesn't rule out their need to constantly transform and evolve, shift and adapt – even if that means closing once the core goal is achieved.

One way to look forward is to deconstruct what labs do. Future innovation structures, whether they be called a lab or not, will focus on aiding digital transformation. Next generation labs must:

- **Anticipate, analyse and prototype emerging technologies:** Labs will continue to function as an early test centre: understanding the potential of emergent technologies and providing this intelligence to individuals/organisations/networks.
- **Continually evolve:** Any structure or process will need to equip their organisation with the ability to be resilient in the face of changing external conditions.
- **Equip people for change:** A key function of labs is to build people who can deliver innovative responses to internal and external conditions. Labs and any other future structure will continually develop both those within the lab, and those who engage with it.
- **Legitimise doing things differently:** the existence of labs has pointed towards a shift in the status quo. They give credibility to alternative practices and technologies.

Methods and tools are a further area to consider. Design thinking, for example, has had a rapid uptake, yet may lose steam. User-centred methods expand beyond this approach, and it may be that in the immediate future labs diversify and experiment with how they capture insights. Academia's use of deeper ethnography and participatory design are perhaps a seed for this future trend, as is the use of AI or big data analysis in understanding where labs should focus.

Labs create a space for thinking, doing things differently and working with technologies, people and processes beyond the confines of journalism. They offer tangible and measurable benefits. The underpinning attitudes that exist within them are firmly future facing, but they also create capacity for individuals to reflect on their activities. Although they may fail, their impact is often absorbed within the organisation. In many respects, the rise of the media lab demonstrates Journalism's realisation that it needs to lean on the core purpose of those first scientific labs. Enabling people and organisations to experiment, fail, learn, create and scale the knowledge and technologies they produce, for the benefit of their own organisation and the wider communities they serve.

For more insights about media labs around the world, the Media Innovation Mapping research by WAN-IFRA's Global Alliance for Media Innovation features 50+ Media Lab cases.

The project 'maps' innovation labs, clusters and a selection of projects globally to examine how the media labs are structured, why they were created, and what type of methods they use to innovate, featuring stories of their successes and challenges.

https://media-innovation.news/media-labs

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Lab	Host	Host type	Country	Active	Mapped	Interviewed	Surveyed
Aalto Media Lab	Aalto University	university	Finland	●	●		
Agence France-Presse Medialab R&D	Agence France Presse (AFP)	media	France	●	●	●	●
Agência-Laboratório de Práticas Inovadoras em Comunicação (UNILAB)	university Católica de Pernambuco	university	Brazil	●	●		
ALiGN Media Lab	Carleton University	university	Canada	●	●		●
Aljazeera Interactives (AJ Labs)	Aljazeera	media	Qatar	●	●		
Amaury Lab	Amaury Group	media	France		●	●	
AP Innovation	Associated Press	media		●		●	*
APA-medialab	Austria Press Agency	media	Austria	●	●	●	●
Arizona State University New Media Innovation and Entrepreneurship Lab	Arizona State University	university	USA	●	●		
Asahi Shimbun Media Lab	Asahi Shimbun	media	Japan	●	●	●	
BBC News Labs	BBC	media	UK	●	●	●	●
BBC Worldwide Labs	BBC	media	UK		●		
BCNMedialab	Independent group of journalists	independent	Spain		●		
BizLab – Public Radio Business Laboratory	N/A	independent	USA	●	●		
BuzzFeed Open Lab	BuzzFeed	media	USA		●		
Center for Investigative Journalism	University of Bergen	university	Norway	●	●		●
Centre for Community Journalism: engaging and innovating	Cardiff University	university	UK	●	●	●	
CFC Media Lab	N/A	independent	Canada	●	●		
Chicas Poderosas – New Ventures Lab	Chicas Poderosas	independent	Brazil	●	●		●
Civic Media Lab	Sahara Reports	independent	Nigeria	●	●		
Civic Media Lab	MIT	university	USA	●	●		
Colorado Media Project		consortium	USA	●	●		
Columbia University School of the Arts Digial Storytelling Lab	Columbia University	university	USA	●	●		●
Critical Media Lab	University of Waterloo	university	Canada	●	●		●
Daily News Innovation Lab	Daily News	media	USA		●		
Diario de Noticias Media Lab	Diario de Notícias	media	Portugal	●	●		
Digital World Research Centre	University of Surrey	university	UK	●	●	●	●
Dlab	Directv	media	USA		●		
DN Lab	Diario de Navarra, Universidad de Navarra, la Universidad Pública de Navarra y el Centro Europeo de Empresas e Innovación de Navarra	Consortium	Spain		●		
DPA-Newslab	DPA	media	Germany	●	●		
Drone Journalism Lab	University of Nebraska–Lincoln	university	USA	●	●	●	
DW Lab	Deutsche Welle	media	Germany	●	●		●
ECOlab	El Colombiano	media	Colombia	●	●		
EL PAIS__LAB	EL PAÍS	media	Spain	●	●		
ElConfidencial. Lab	El Confidencial	media	Spain	●	●		
Engagement Lab	Emerson College	university	USA	●	●		●
EPFL+ECAL Lab	University of Art and Design Lausanne	university	Switzerland	●	●	●	
ESPM Media Lab (SP)	ESPM – SP	university	Brazil		●		
Estado Lateral Media Lab	N/A	independent	Argentina		●		
Fac Media Lab (FML)	Universidade de Brasília	university	Brazil	●	●		●
FranceTV	France Télévisions	media	France	●	●	●	●
FT Labs (of Financial Times Ltd)	Financial times	media	UK	●	●		●
Future Earth Media Lab	Future Earth, Globaïa and the International Council for Science	consortium	Sweden	●	●		

Lab	Host	Host type	Country	Active	Mapped	Interviewed	Surveyed
Future Places Medialab for citizenship	N/A	independent	Portugal		●		
GlobeLab	The Boston Globe	media	USA		●		
Google News Lab (USA, matriz)	Google	media	USA	●	●		
Griot – Laboratório de Investigação em Jornalismo, Direitos Humanos e Narrativas Complexas	Fundação Universidade Federal de Mato Grosso do Sul	university	Brazil	●	●		●
Guardian US Mobile Innovation Lab	The Guardian	media	USA		●		
Hackastory	Hackastory	innovation agency	Holland	●		●	*
Harmony Labs		independent	USA		●		
Havas Media Lab	Havas Media (agência de publicidade)	media	UK		●		
Hive Media Lab	Cascade Public Media (KCTS 9 TV)	media	USA	●	●		●
Huffpost Labs	Huffington post	media	USA		●		
Human Media Lab	Queen's University	university	Canada	●	●		
INJECT	N/A	consortium	n/a			●	*
Innovation & Futures Lab	Reynolds Journalism Institute at University of Missouri	university	USA	●	●		
iNOVA Media Lab	Universidade Nova de Lisboa	university	Portugal	●	●	●	●
IPG Media Lab	Interpublic Group	media	USA	●	●		
IRIB R&D (former New Media Lab)	IRIB – Islamic Republic of Iranian Broadcasting	media	Iran	●	●		
Irish Times Idealab Innovation	The Irish times	media	Irlanda		●		
J-Lab	American University's School of Communications	university	USA	●	●	●	
Jornal de Noticias Media Lab	Jornal de notícias	media	Portugal		●		
Journalism and Media Lab (JamLab)	Wits Journalism and the Tshimologong Digital Innovation Precinct in partnership with Ryerson University, Toronto and Journalists for Human Rights.	consortium	South Africa	●	●		
Kaya Labs (former Independent Lab)	Independent Media	media	South Africa	●	●	●	
Kids Media Lab	Universidade do Minho	university	Portugal	●	●		
Knight-Cronkite News Lab	John S. and James L. Knight Foundation and the Walter Cronkite School of Journalism and Mass Communication at Arizona State University.	consortium	USA	●	●		
La Diaria Lab	La Diaria	media	Uruguay	●	●		
LA Media Lab	N/A	Consortium	USA		●		
Lab 351	The Globe and Mail	media	Canada	●	●	●	
Lab:ACM	Instituto Politécnico de Beja	university	Portugal	●	●		
LABIC	Universidade Federal do Espírito Santo	university	Brazil	●	●		
Laboratório Aberto de Jornalismo da Énois	N/A	independent	Brazil	●	●		●
Laboratório de Convergência de Mídias – LABCOM/UFMA	Universidade Federal do Maranhão (UFMA)	university	Brazil	●	●		
Laboratorio de Experimentación Periodística	RED/ACCION	media	Argentina		●	●	
Laboratório de Inovação em Jornalismo – Labin	Universidade Federal de Ouro Preto	university	Brazil	●	●		
Laboratório de Inovação em Jornalismo Ambiental	Eco	independent	Brazil		●		
LABs – Laboratórios de Inovação Jornalística	Agência Pública	media	Brazil	●	●		
LES/PUC-Rio (Laboratório de Engenharia de Software, Globo Lab Dados)	Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio) and Globo	consortium	Brazil	●	●		●
Local News Lab at Democracy Fund	Democracy Fund	independent	USA	●	●		●
MAS Nice-Matin	Nice-Matin	media	France	●	●	●	●
McClatchy New Ventures Lab	McClatchy	media	USA	●	●		
Media & democracy	non-profit company	independent	Sweden	●	●	●	●

Lab	Host	Host type	Country	Active	Mapped	Interviewed	Surveyed
Media Camp	Turner Warner Bros	media	USA		●		
Media City Bergen Media Lab (MCB Media Lab)	Companies and The University of Bergen	consortium	Norway	●	●		●
Media Innovation Lab Texas State University	Texas State University	university	USA	●	●	●	●
Media Innovation Studio	University of Central Lancashire	university	UK	●	●	●	●
Media Lab (UFG) – (UFG, UnB e UNIFESSPA)	Universidade Federal de Goiás (UFG), Universidade de Brasília (UnB) and Universidade Federal do Sul e Sudeste do Pará (UNIFESSPA)	university	Brazil	●	●		
Media Lab (UNIFESSPA) – (UFG, UnB e UNIFESSPA)	Universidade Federal de Goiás (UFG), Universidade de Brasília (UnB) and Universidade Federal do Sul e Sudeste do Pará (UNIFESSPA)	university	Brazil	●	●		●
Media Lab / UAM (University Anhembi-Morumbi)	university Anhembi Morumbi	university	Brazil	●	●		●
Media Lab ANTEL-ORT	Universidad ORT	university	Uruguay	●	●		
Media Lab Bayern	N/A	independent	Germany	●	●	●	●
Media Maker Space/DMJX	Danish School of Media and Journalism	university	Denmark	●	●	●	●
MediaLAB Amsterdam / Digital Society School	Amsterdam University	university	Netherlands	●	●		
MediaLab EAFIT	EAFIT	university	Colombia	●	●		●
MediaLab Iscte-IUL	ISCTE-IUL	university	Portugal	●	●		●
Medialab Katowice	N/A	independent	Poland	●	●		●
Medialab UFF	Universidade Federal Fluminense (UFF)	university	Brazil	●	●		●
MediaLab.UFRJ	Universidade Federal do Rio de Janeiro (UFRJ)	university	Brazil	●	●		
MedialabUIO-CIESPAL	CIESPAL – Centro Internacional de Estudios Superiores de Comunicación para Latin America	independent	Ecuador	●	●		
MediaLab-UnB – (UFG, UnB e UNIFESSPA)	Universidade Federal de Goiás (UFG), Universidade de Brasília (UnB) and Universidade Federal do Sul e Sudeste do Pará (UNIFESSPA)	university	Brazil	●	●		●
Mediati	N/A	independent	South Korea	●	●	●	
metaLAB (at) Harvard	Harvard University	university	USA	●	●		●
Mexico Media Lab	N/A	independent	Mexico	●	●		
MiLab – Media Innovation Lab	University of Vienna	academic research centre	Vienna	●		●	*
MIT Media Lab	MIT	university	USA	●	●		
Monday Innovation Lab		independent	Spain	●	●	●	●
NBCUniversal – Media Labs	NBCUniversal	media	USA	●	●		
Neo Media Lab	UNIVERSIDAD NACIONAL DE TRES DE FEBRERO (UNTREF)	university	Argentina	●	●		
New York Daily News Innovation Lab	New York Daily News	media	USA		●		
Next Media Accelerator	German Press Agency (dpa) e investimentos de outras empresas de mídia	consortium	Germany	●	●	●	
NJ Mobile News Lab	Cooperative Media at Montclair State University, Geraldine R. Dodge Foundation and the James S. and John L. Knight Foundation	consortium	USA	●	●		●
Nordjyske Startup	Nordjyske Medier	media	Denmark	●	●	●	●
Northwestern Local News Initiative	Northwestern University	university	USA	●	●		
Northwestern University Knight Lab	Northwestern University	university	USA	●	●	●	●
NPR Public Radio Incubation Lab	NPR : National Public Radio	media	USA	●	●		
NRK Beta	NRK	media	Norway	●	●		
NxtMedia	n/a	network	Norway	●		●	*
NYC Media Lab	Consortium between private companies and universitie	consortium	USA	●	●	●	●
NYDN Innovation Lab	New York Daily News	media	USA		●		

Lab	Host	Host type	Country	Active	Mapped	Interviewed	Surveyed
OFF7, startup accelerator of Ouest-France	Ouest- France	media	France	●	●	●	●
OjoLab	OjoPúblico	media	Peru	●	●		●
Open Lab	Newcastle University's School of Computing Science	university	UK	●	●	●	
OrbitalLab	N/A	independent	Brazil	●	●		●
Ouest Médialab		consortium	France	●	●	●	●
P3	Público	media	Portugal	●	●		●
PBS Idea Lab	PBS	media	USA		●		
Pervasive Media Studio	University of the West of England, University of Bristol and Watershed	university	UK	●	●	●	●
Quartz Bot Studio	Quartz	media	USA	●	●		
RAI Lab	RAI	media	Italy		●		
Reese News Lab – Center for Innovation and Sustainability in Local Media	University of North Carolina	university	USA	●	●		
Remedia.Lab – Laboratório e Incubadora de Media Regionais	Universidade da Beira Interior	university	Portugal	●	●		●
Roularta Mediatech Accelerator	Roularta Media Group	media	Belgium		●	●	
RTVE.es Lab	RTVE	media	Spain	●	●		
São Mateus em Movimento Media Lab	N/A	independent	Brazil		●		
Sense-IT	Norwegian University of Science and Technology	university	Norway	●	●	●	●
Social Media Lab	Ryerson University	university	Canada	●	●		
Social Media Lab – or "SIMElab"	United States International University Africa (USIU)	university	Kenya	●	●		
Stanford Computational Journalism Lab	Stanford University	university	USA	●	●	●	
Stibo Accelerator	Stibo A/S	independent	Denmark	●	●	●	●
The Annenberg Innovation Lab	University of Southern California (USC)	university	USA	●	●	●	
The Brown Institute for Media Innovation	Columbia University's Journalism School (East Coast, New York) and Stanford's School of Engineering (West Coast, California)	university	USA	●	●	●	
The Lenfest Local Lab	The Lenfest Institute for Journalism	consortium	USA	●	●		●
The NYT Company R&D Lab	The New York times Co.	media	USA	●	●		
The Wall Street Journal R&D	The Wall Street Journal	media	USA	●	●	●	
Théophraste	Sud Ouest newspaper	media	France	●	●	●	
Time Inc UK Innovation Lab	Time Inc	media	UK		●	●	
Time Warner Media Lab	Time Warner	media	USA		●		
Topological Media Lab	Concordia University	university	Canada	●	●		
Tow Center for Digital Journalism	Columbia University	university	USA	●	●		
Tow-Knight Center for Entrepreneurial Journalism	CUNY Newmark Graduate School of Journalism	university	USA	●	●		●
Ubilab	Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS)	university	Brazil	●	●		●
University of Kansas Media Innovation Lab	University of Kansas Media Innovation Lab	university	USA		●	●	
Visual Social Media Lab	University of Sheffield	university	UK	●	●		
Vocento Media Lab	Vocento	media	Spain	●	●		
WapoLabs	The Washington post	media	USA		●		
WarnerMedia Innovation Lab	WarnerMedia with AT&T's	media	USA	●	●		
WITNESS Media Lab	Parceria com Google News Lab	consortium	USA	●	●		●
Yahoo! Labs	Yahoo	media	USA		●		
YR Innovation Lab	YR Media	media	USA	●	●		

* not featured in quatitative approach

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