Communication during Inflation Crisis

- Analysis Based on Strategic Communication Framework

Key Messages

- The Strategic Communication Framework for Statistical Institutions (SCF) sets out the values and principles that should guide any statistical communication strategy.
- The Task Team (list member countries/organisations) used the SCF as a tool to support an NSO on facing and responding the inflation crisis and its implications from the perspective of communicating the data.
- The new digital and AI realities bring a growing emphasis on data and their value and stimulate users to inquire more of where the information is coming from and how reliable it is, which in turn brings increased attention to the work of national statistical organisations.
- Any crisis situation is both an opportunity and a challenge for a national statistical office.
- Any crisis situation becomes an occasion to identify strengths, weaknesses, opportunities and threats (SWOT) both within the organisation as a whole and in the area of operational and strategic communications.
- There is a growing responsibility for NSOs to be aware of what is in the public discourse and to provide insight and context where appropriate.
- The inflation crisis emphasised on the need for strong links and awareness between the statistical production area and communications for a successful response to it.
- As a monthly 'routine' release it is easy to miss the time a situation becomes something that everyone is scrutinising closely. It is important to have a process where the statistical area can alert communication professionals on any major developments or issues while the communication area can ask questions about any issues they spot in the release.
- The inflation conversation provided an opportunity for NSOs to engage with citizens who may not normally be aware of statistical offices and the data they produce. It is important to leverage this opportunity, not only to explain the particular issues, but also to draw attention to the professional independence and other fundamental principles of official statistics, where relevant.
- Catching visual products, short explanatory videos and fictional characters or personas can improve CPI literacy and the engagement among users.
- Knowing our users, their characteristics and needs enables the national statistical office to use the different channels and tools to deliver the "right" message to the "right" user.
- Both, traditional and digital channels are important for conveying the messages and coexist in relative balance: offline communication remains an important medium in the cases when the digital is not available while, digital

- media becomes increasingly important for some categories of users and in emergency situations (COVID outbreak, global inflation crisis, etc.)
- Traditional and digital tools give a lot of flexibility to NSO to deliver the message to different user groups, however, it is important to keep in mind that communication professionals are the key figures in developing and orchestrating the communication strategies and campaigns!
- The success of a statistical product depends equally on the scientifically sound methodology and its proper communication to the users.

1. Introduction

Background

As the world was recovering from the global pandemic, it was swept by an inflation crisis affecting numerous countries and millions of people, with the 2022 annual rate reaching 9.2 per cent in EU region and 7.5 per cent worldwide. This inflation crisis has sparked a widespread interest in inflation and price data. People increasingly sought to understand how the official price statistics headlining the news articles and media was obtained, why they reached such height, or sometimes, simply become unhappy with the data.

As the primary producers of official statistics on various social, economic and environmental aspects of a country, national statistical organisations have a long history of disseminating and communicating data. The statistics on price and inflation have historically been among the most prominent products of statistical organisations, hence, there has been a considerable amount of experience and expertise amassed. However, the communication of price statistics amidst the inflation crisis has been challenging for several reasons.

Foremost, the topic is very close to the daily lives of people. While some data from statistical organisations measure aspects relevant to certain industry/sector or stage of lives, the price increase is a phenomenon that affects the lives of people in a very tangible way. The headline inflation rate is based on various factors, but many individuals felt that the official number did not reflect the economic hardship they were experiencing. Researchers questioned the way the number was calculated which fuelled scepticism about the accuracy and relevance of the official statistics.

The fact that inflation is closely related to the daily lives of the public, has made the topic also highly politicised. Inflation is among the statistical indicators that are particularly prone to politicisation. For the general public, inflation is a major concern, as it has a big impact on their economic condition and financial well-being. According to a Gallup poll on 2021, 45% of Americans report financial hardship triggered by increased prices, thus having influence over voter sentiment. Different political factions interpreting and using the data to support their agendas, raise questions about objectivity of statistical organisations when the data did not fit the agenda, at times, bringing data from sources that were not necessarily verifiable and reliable. The increasing influence of social media and digital platforms in the past decade has exacerbated the spread of misinformation and disinformation about inflation.

Finally, given the heightened interest in inflation, users who typically had not interacted with NSOs had a need for clear, simple explanations of methods and background. Effective communication of statistics involves not only presenting the numbers but also providing explanation and necessary background information, e.g., methodology. The Consumer Price Index (CPI) is calculated based on a range of factors (see more in Section 2). While the statistical organisations have always made their methodology transparent, the way it was communicated might have been more suited for experts rather than the general public, whose interest has been heightened due to the crisis but who require a more simple and relatable explanation.

Strategic Communication Framework

The Strategic Communication Framework for Statistical Institutions (SCF), developed by the High-Level Group on Modernisation of Official Statistics Project (2019-2020), provides guidance to support statistical organisations in developing their communications strategy aligned with the values and principles that underpin official statistics.

This paper is written based on case studies from statistical organisations on challenges around communicating price statistics during the global inflation crisis. It is structured following the main elements and steps outlined in SCF, namely – values, environmental scan, communication objectives, audience segmentation, communication channels and content strategy - to provide comprehensive analysis of what should be taken into consideration, what has been done and what could have been done better. The paper provides a practical application of how statistical organisations can use the framework to consider their communication strategy. The strategies and actions taken from statistical organisations are presented throughout sections to provide concrete examples. The full case studies can be found in Annex 1.

2. Consumer Price Index

What is CPI?

The CPI is a monthly indicator that summarises the evolution of prices in the economy, as it measures the evolution of the prices of a basket (updated regularly) of goods and services that represent the structure of monetary expenditure for final consumption by families living in a country.

Before the start of each year, the sample of goods and services can be updated, so new goods and services that have gained expression are added, and obsolete goods and services that are no longer representative, are excluded. An inflation indicator measures the additional expenditure one has to make to maintain the consumption basket of the pre-defined or base period. It is an index number based on 100 (reference period = 100).The index number is a simplified measure to show the variation between a value and a reference point. In the case of the CPI, the reference value is assumed to be 100. The base value of index numbers is always identified in the statistics. For example, 2012=100, i.e. 100 is the value observed in 2012. The value of the index number at a given time indicates the direction of the change: if it is greater than 100, the value is greater than the base, meaning an increase. If it is less than 100, the value is less than the base, i.e. there has been a decrease. Subtracting 100 from the index number gives the percentage rate of change. Therefore, the index number immediately reveals how far a value is from the base.

Therefore, the CPI is not an indicator of price levels, but a summary indicator of the variation in consumer prices over time.

Consumer prices correspond to the amount paid by households to purchase individual goods and services based on monetary transactions. This amount includes all indirect taxes net of subsidies on products, rebates and discounts, as long as they apply across the board to consumers, and excludes interest and other costs associated with buying on credit. They are therefore an indicator of how much consumers pay when they buy a good or service. These goods and services include items that consumers frequently purchase, such as food and fuel. It also includes less frequently purchased items such as household appliances and airline tickets.

What is CPI used for?

The CPI is a fundamental statistical operation for the formation of expectations, economic calculation and decision-making by economic agents. In addition to this generalised interest, it is also important for national, international and regional (i.e., EU and Euro area) economic and social policy authorities. It should be noted that the value obtained in December from the CPI (average rate of change over the last twelve months, which compares the level of the average index over the last twelve months with the immediately preceding twelve months) has been used as a reference indicator in social dialogue and is therefore associated with the annual inflation rate.

In this sense, the CPI is an indicator formally provided for in many contracts, administrative and judicial provisions, and is used in the formation and updating of prices, namely rents, salaries, pensions, user charges, tuition fees and expropriations.

In statistical terms, it is used as an input in the calculation of the Harmonised Index of Consumer Prices (HICP) (EU area) and as a deflator of Private Consumption in National Accounts.

At times when prices are rising and the inflation rate is behaving in a way that sometimes doesn't exactly reflect the rise in prices of frequently purchased items, it's important for users to be familiar with the NSO's production methodology used to produce the CPI, in order to understand why inflation does not fully reflect the cost of living but rather the variation in a set of products defined according to a transparent and robust methodology. Hence it is important for NSOs to engage in regular, pedagogical communication, with clear, simple language that is accessible to the average user.

Communication of CPI

The CPI is communicated to the public through official reports, often with breakdowns by purchasing categories, regions, large cities, and more. These communications are often brief summaries of the latest data point with some context on drivers of the monthly or annual change. These reports are often written for media consumption and have little in the way of methodology or concepts within the main text of the report. Some countries (e.g., Statistics Canada, Statistics Netherlands, Statistics Thailand) present the figures using interactive visualisation tools and dashboards. It helps the general public to understand the data, trends and developments more easily. Recently, it became more critical to communicate and also explain the way the CPI is calculated, as the public doubts or does not completely understand the methodology, and why it is felt differently in the real life (e.g., the Federal Statistical Office of Switzerland made a short video to describe the process and challenges in an easy language)

3. Values and Environmental Scan

Values

The Strategic Communication Framework for Statistical Institutions (SCF) sets out the values and principles that should guide any statistical communication strategy. These are inherent in many communication outputs across the international statistical system. However, a universal communication challenge such as rapidly rising inflation is an opportunity to reflect on and review our adherence to these.

The principles outlined in SCF include;

- Being impartial
- Being visible/vocal
- Give equal access
- Being relevant
- Being timely
- Being flexible
- Ensure data confidentiality and security, and
- Being innovative

Given the widespread engagement with these data, the universal impact, and the national and international discussions generated, it is particularly important to review if we have been visible/vocal enough and if the information we have supplied has provided equal access.

Environmental Scan

The digital and information age has substantially increased the strategic importance of data and its value as a resource of the state. This has resulted in increased scrutiny of where information is coming from and how reliable it is, which in turn brings increased attention to the work of national statistical organisations. This presents opportunities to highlight the relevance and value of statistics and also increases the risks attached to not responding effectively to situations where statistics and data are an integral part of public discourse. There is growing responsibility for NSO's to be aware of what is in the public discourse and to provide insight and context where appropriate. In an environment where information and misinformation is used strategically to influence attitudes and decision making, it is incumbent on NSO's to be proactive in highlighting the reliability, accuracy and quality of Official Statistics. As always this has to be balanced with the need for political independence.

SWOT analysis of communication challenge or crisis

Any challenge or crisis provides an opportunity to identify strengths, weaknesses, opportunities or threats (SWOT) both within the organisation as a whole and the operational and strategic communications.

Strengths and Weaknesses

These will vary according to the capacity and capability of organisations. At a minimum, organisations should have a plan in place to deal with emerging crises and a communication structure that allows for early identification of a crisis. In the case of the inflation crisis, there was a variation in the existing assets and resources that were available to explain the CPI, what it measured, how it should be applied etc. The ability to respond was enhanced where these resources existed and possibly hampered where relevant material had to be developed. Additionally, the routine nature of the CPI release could be considered a strength or a weakness depending on how it was viewed within the organisation. The long term existence and established methodology was a strength in terms of communicating the reliability and accuracy of the data. However, the routine nature of the data may have led to assumptions of knowledge that proved to be unfounded as the public discourse emerged. There may be a value in identifying key or headline outputs and ensuring that there are accessible explanations on methodology and key figures available for use in crisis situations.

Opportunities and Threats

Crisis communication situations by their nature tend to pose a threat to the reputation of the organisation. In the case of the discourse on inflation the threats ranged from a lack of understanding of how inflation is measured, misinformation about the application of CPI data, through to accusations of political interference etc. The situation also presented opportunities to draw attention to the value and accuracy of our data, and its relevance in times of crisis. An important element of whether a crisis such as this diminishes or enhances an organisation's reputation, can be the approach taken to communication. Understanding a threat may also present an opportunity to switch the mindset from purely defensive to a more open and transparent level of communication. In the case of CPI, despite being a ‘headline’ indicator which many people are aware of, it is not a cost-of-living index. The threat of citizens misunderstanding the CPI and questioning its relevance or validity could be offset by taking the opportunity to highlight other outputs that provide more context for, or measure the impact of inflation, on different sectors of the economy. This could help to better position the organisation as a trusted source in times of crisis.

Box x: Statistical organisations blamed for the inflation crisis - challenges arising due to misunderstanding about their role (Central Statistical Office of Ireland)

Messaging from Utility and Mobile Phone companies

One challenge CSO Ireland has faced arised from communication between utility and mobile companies and their customers. A number of their websites have made reference to the CSO ‘setting’ the inflation rates and when customers have complained about price increases staff have referred them to the CSO as the ‘responsible’ body. This caused an increase in calls and complaints from members of the public who were essentially blaming the CSO for the increased cost of their bills.

CSO Remedial Action.

The statistical office engaged with the companies, requesting them to ensure that any references to the CSO and the CPI on their website referenced information published by the CSO rather than rates set. It was also requested to ensure that their staff were aware that the CSO measures inflation rather than being responsible for it.

CSO put an explanation of how the CPI is calculated on the homepage with a link to an accompanying video explainer.
https://www.cso.ie/en/releasesandpublications/in/cpi/informationnote-thecpicollectspricesbutdoesnotsetchargesappliedtocustomers/

There are still references to the CPI as the basis for price increases on several websites. However it is now clearer that the companies are using the published rate rather than following any instruction or policy from the CSO.

The number of calls to statistical offices in relation to this situation has dropped significantly.

This communication challenge highlights the importance of strong links and awareness between the statistical production area and communications. As a monthly ‘routine’ release it is easy to miss the time it becomes something that everyone is talking about and scrutinising closely. It is important to have a process where the statistical area can alert communications to any major developments or issues and the communications area can ask questions about any issues they spot in the release

The inflation conversation has also provided an opportunity for NSO’s to engage with citizens who may not normally be aware of us or the data we produce. It is important to leverage this opportunity, to not only explain the particular issues involved here, but also to draw attention to the independent and principled nature of what we do. This can be an opportunity to present ourselves as trustworthy, independent, and of value to citizens who don’t normally engage with us.

It may also present an opportunity to point users in the direction of other products that could be of value to them, and for NSO’s the effectiveness of user journeys, and if we have provided users with links that allow them to see the bigger picture of prices and inflation.

4. Communications Objectives

Having in mind the type of information CPI is, its great importance to many different users and the different usages by society, CPI communication objectives must enable the development of strategies to improve CPI literacy and the engagement with the user.

The main communication objectives for the CPI are:

1. **Inform key stakeholders,** data **users**, media, and by extension, citizens, about the various CPI components, how prices are collected, treated, and calculated. Which data and tools are available. This can be achieved, for example, by:

    - Audience targeted news and messages

    - Leveraging social media and government websites to disseminate up-to-date information about the CPI, price changes and their impact on consumers.

    - Using infographics, short videos, or short stories to explain the CPI in an engaging way.

2. **Improve citizens’ understanding** of the CPI and its value to curb the spread of mis and disinformation. This can be achieved, for example, by

    - Developing intuitive creative/visual products that compare headline CPI to their personal consumption patterns. These products would portray inflation not as a one-size-fits all measurement, but as an economic reality that affects different citizens differently.
    - Creating fictional characters (avatars) that represent citizens in varying situations and regions with different consumption habits.
    - Creating short videos capsules explaining the CPI in plain language, that could be featured on the website, social media and during key dates.

- Helping the media understand the CPI concept so that they can convey correct information to the public.

Box x. Challenges arising from the lack of understanding of CPI concepts (Statistics Indonesia)

BPS as Indonesia's NSO has had several issues regarding price statistics in recent years, among others:

- The weight of the impact of price increases in each region is different, causing BPS to receive many protests from the local government. For example, when there is an increase in the national price of electricity, the impact of the increase in electricity can cause an increase in the prices of other goods that vary by region. This is of course because the number of electricity users in each region is different. Good communication between agencies is needed.
- Calculation of inflation in Indonesia is only limited based on price, not size or volume. Last year we had a problem about the scarcity of oil in Indonesia. This is because there is an oil mafia that hoards oil. However, the government issued a policy to reduce oil prices to 14,000 rupiah. When the inflation figures were released, the public protested against BPS how it was possible for a commodity to be scarce, but instead there was deflation in several regions. The calculation of inflation in Indonesia cannot capture the total volume of commodities sold, so it is only based on the price of a commodity.
- The prices of a commodity in modern markets and traditional markets are often different. This is because the modern market tends to get a more guaranteed supply of products so that the price tends to be stable, while the traditional market is the opposite. BPS often gets criticism because the prices perceived by traditional communities tend to be higher than the prices released by BPS.

3. **Building and maintaining an active CPI network** by proactively outreaching out to the media, the general public, and other stakeholders and get ahead of the discrepancies between the slowing headline CPI and the continued rising prices of everyday items to **explain in plain language** the discrepancies.

    - Collaborate with the media to provide accurate coverage of CPI and inflation trends.

    - Encourage the public to ask questions and participate in discussions regarding inflation and CPI.

    - Receive input from the public to improve understanding and delivery of information.

4. **Building brand and trust,** reinforcing the organisation’s presence during key promotional dates and further opportunities to collaborate with new stakeholders and

build on existing relationships to bring CPI messaging to a wider audience. Examples include.

- Official workshops/webinars and speaking opportunities, podcasts, youth conferences/workshops, etc.
- Promotion of how-to videos that traditionally perform well among academia/youth groups
- Looking into events where we can join partners such as the national bank to explain the full impact of inflation.

Box 2. “Ride along with price data collectors” initiative showing transparency and building trust (U.S. Bureau of Labour Statistics)

Often citizens note that inflation doesn’t seem to reflect their own reality. There’s a sense that the inflation data are just developed from a room of statisticians without any link to the real world. BLS approached this by inviting news media as “ride along” data collectors. The first piece was a public radio story that aired in July 2021. Within a week, BLS had requests from 4 other major media outlets requesting to do “ride along” interviews. All these news spots both drove traffic to our website as well as a surged interest in applications to be a data collector for BLS. This strategy of embedding media with economists to show the process of collecting and the care and precision that goes into this work has been successful and we have replicated this for other surveys as well.

This ride-along concept came about from a series of questions by a reporter. Once it was clear that the reporter had lots of questions about how the data were collected, BLS offered to allow the reporter to ride along with a CPI data collector. Before the ride-along, BLS required the reporter to sign a nondisclosure agreement. This agreement stated that no company names (including workers’ names at the worksite) were to be mentioned in the reporting, all branded items must be blurred out of any photographs, and no reporting of specific prices to specifically branded items. BLS paired the reporter with an experienced price collector, who had performed this type of interview before.

BLS has conducted a few of these types of interviews now and some lessons learned from them. Even though we had secured nondisclosure agreements from the reporters, we discovered in one instance, the shop owner was so proud of his public service as a participant, he wanted his name and store mentioned in the reporting. We did have to convince the owner and remind the reporter of the agreement that collecting data in confidence allows continued cooperation from respondents.

5. Audience Segmentation

For several years now, the communication environment in which the NSOs operate has been affected by a profound change of scenery. Social platforms have assumed the function of news distributors, while media consumption habits have been revolutionised by the Internet and mobile telephony and more recently by the generative AI platforms and tools, such as ChatGPT or Bard, etc.

Once on the Web, statistical data enter a broad "life cycle" in which they interact with different information and processes (on social media platforms for example); at the same time, they are subject to multiple interpretations and even possible misinterpretations.

In addition, proliferation of "unofficial" statistics, surveys and data find wide circulation in the media, even though their production methodologies and processes are not always clarified. Thus, it becomes crucial for the producers of official statistics to address the issue of "trust" in, and the reliability of the data disseminated. This means that the need to respond to the different demands of various users goes hand in hand with the urgency of promoting widespread statistical literacy (still scarce among the general public) and the relevant use of data, clarifying the processes and methods of their production, as well as their possible interpretations.

Taking this into account and going to the specific communication on CPI, who are our main target audiences? The CPI is one of the most closely followed statistical information by our user community, especially in times of global economic crisis. Therefore, the target audiences mainly coincide with those of official statistical information and, in this regard, we can surely refer to the classification "The Users of Statistics and their role in the European Society" drawn up by the European Statistical Advisory Committee (ESAC)[1].

This classification divides users into two major categories with each set of users differentiated according to their interests:

- Institutional Users
- Non-Institutional Users

This distinction is *a priori* important for several reasons. **Institutional users** generally need data for governmental and administrative decision making. Their data needs are considerable and usually have priority in terms of demands that are met by data producers. Furthermore, data for Institutional users typically need to allow for comparison over time and space in order to verify the impact of decisions.

Non-Institutional users, individuals belonging or not to institutions, have different needs, focused particularly on having statistics ready for communication and diffusion to wider audiences. For them it is important to be able to show new trends of interest and importance on developments in the everyday life of citizens.

It is clear that users may have several interests so they might actually belong to different classes. However, here they are assigned to classes with the criterion of the most frequent and/or prevalent interest.

The Institutional users include: governmental agencies and departments, specialised international, regional and supranational organisations, Central Banks, academia and research institutions, specialised associations or companies (for students, employees, manufacturing groups) etc.

Non-institutional users include the following groups, according to their interest on statistics:

1. Users with a general interest (e.g., economic growth)

    - Journalists and media
    - Citizens
    - Students (by level of education, or age)
    - Teachers (by level of teaching education)

2. Users with a specific subject/domain interest (e.g., health)

    - Other decision makers
    - Policy analysts
    - Marketing analysts
    - Experts in a specific field

3. Users with a research interest (e.g., innovation in enterprises)

    - Scientific community – academia and researchers at universities and research institutions
    - Consultants and researchers in Governmental Agencies and private sector.

Another useful taxonomy drafted by ESAC disaggregated at individual level, identifies users according to their frequency of statistical usage and proficiency:

a) **Heavy users**: researchers, specialists, politically or civically engaged citizens and other people that use statistics on a daily basis. Typically, this is the person who knows where to find data and how to interpret it. Within this category we can distinguish the *very heavy users*: researchers who would be routinely engaged in using disaggregated and micro data in their research and who could contribute to the improvement of data quality by engaging with data producers.

b) **Light (occasional) users**: users who check some figures from time to time. They would know the National Official Statistics websites and international / regional bodies' (e.g., UN, Eurostat, etc.) websites but would find some difficulty in getting the data they need and would not be looking for metadata. At the same time, it is worth mentioning that this was the particular segment of individuals that NSOs experienced an increased need to serve during this latest inflation crisis.

c) **Non-users** who might be *potential users*: all people who do not go looking for data believing it is something difficult to understand and not being aware of its relevance and insights.

Of course, as it is often the case, these typologies - institutional users /non institutional and heavy/light/non-users - overlap: institutional users would be more of heavy users; non-users are potential users with a general interest.

The ESAC classification, as mentioned above, refers to users of statistics in general. This includes those who are specifically interested in the CPI. In addition, there are some specific user groups that closely follow the CPI and related information, such as central banks, economists in government departments and ministries, universities and academia, and even student loan companies (for the calculation of student loans, for example).

An example of a more specific research of users and uses of CPI and other related information and indices was produced by the Office for National Statistics UK (ONS UK) (https://www.ons.gov.uk/economy/inflationandpriceindices/methodologies/usersandusesofconsumerpriceinflationstatistics).

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[1] *The Users of Statistics and their role in the European Society* Authors: Maurizio Vichi, Maria João Valente Rosa Co-author: Frances Ruane - ESAC 2015

6. Communication Channels

As mentioned in the previous chapter, the CPI figure is relevant to all audience targets of statistical information and acquires particular relevance in times of global economic crisis. For this reason, the communication channels to be used are all those available, both traditional and digital.

Although they are quite expensive, traditional channels are accessible to everyone and provide a lot of visibility, such as advertising on TV or billboards; it is true that your message can reach anyone, but to succeed in being noticed by standing out from the competition you will need campaigns prepared by creative professionals who know how to offer something attractive.

In this case, we are therefore talking about offline communication, by which we mean that set of tools of communication (rather than channels) that do not use the Internet and thus:

- Billboards
- Flyers / brochures/newsletters
- Traditional media
    - Television
    - Radio
- Newsrooms

Offline communication represents a communication strategy that can support and augment Internet communication, while the reverse is not possible. It is therefore able to connect directly to an audience that does not use the Internet, and while a large percentage of people are now online (with a growing percentage), we cannot forget those who cannot turn on a computer or do not have a smartphone but have the same right as others to receive statistical information from official sources. In addition, there are still markets that are difficult to reach using only digital media.

Traditional communication strategy enacts the "seeing is believing" culture; consider, for instance, an outreach campaign that captures the audience interest, leading to investigate and research some specific, additional data.

In other words, traditional communication allows us to connect with an audience that may otherwise be excluded from our information offerings. However, it has limitations since offline communication tools lack interactivity with their audiences. While these tools can accomplish much, they cannot achieve everything. Therefore, a more effective approach today involves integrating both traditional and digital modes of communication.

To borrow the definition coined by Marshall McLuhan[1], there are "hot" media, which fix their content and constitute a stable form of communication (readers or viewers read or watch without modifying anything) and "cold" media, which provide space for the audience to modify the messages, and which are different each time due to audience participation. This terminology does not refer to the temperature or emotional intensity, nor some kind of classification, but to the degree of participation. A warm media allows less participation than a cold medium, a lecture less than a seminar, a book less than a dialogue. But our age is full of cases that confirm the principle that the hot form excludes, and the cold form includes.

Turning to the analysis of digital channels, we see that they facilitate interactive communication with our audiences. Additionally, digital platforms provide cost optimization by targeting specific individuals who align with their known interests or pages they follow. While the expenses associated with these campaigns are lower, they do require professionals with advanced digital skills.

And how can all this be traced back to an official statistical organisation that intends to reassure its audiences about the reliability of the information provided with the release of CPI data?

Referring to some of the case studies reported in the Annexes, we see how in geographically and politically very different realities certain topics evoke similar reactions of disbelief and perplexity from the public. It is extremely complex to explain the difference between true inflation and perceived inflation to a non-expert citizen-economist, who knows only that prices seem much higher to him or her than what we tell them as NSOs.

It, therefore, becomes essential to use every channel and tool at our disposal to counter the "infodemic" of which we are victims today as citizens and for which scientific facts are often in conflict with accidental or intentional disinformation. We must set ourselves the goal of improving scientific communication and contributing to critical thinking, digital awareness and

[1] https://designopendata.files.wordpress.com/2014/05/understanding-media-mcluhan.pdf

media literacy of practitioners as well as non-expert users. The result will be a more informed public and a more resilient democratic society. Think for a moment of what we convey through social networks: in this case the users have the possibility to comment, review and post in turn, but also to receive from us precise and specific answers to their specific questions and this becomes particularly important when the data we disseminate arouses perplexity and is not clearly understood.

The advantages associated with digital channels are varied; the most relevant is given by the possibility of personalising messages based on the target to which they are addressed, aligning them with the characteristics of the users to whom they are addressed.

Digital communication aims to stimulate interaction between users such as sharing content or one's own personal opinion. Moreover, it aims to build an online reputation, a positive perception of the organisation that offers the information and consequently also of its messages.

But what are these digital tools and how to best use them?

We start from the **website**, which performs various essential functions. It provides information about the organisation, including links to social networks where we have our accounts/pages and is essential for strategic positioning on search engines, a fundamental requirement to allow potential users to find us quickly. In order for the site to be intuitive and easy to consult for the user, it must comply with a series of parameters, both graphic and layout and structural. To be more precise, each website of the different statistical institutes is an ideal platform to host a section dedicated to the CPI, explaining the three indices that measure inflation to their target and publishing a series of FAQs that can provide answers to the most frequent and recurring questions. (for example the website of the Italian National Institute of Statistics (Istat) https://www.istat.it/en/archivio/36294)

A **blog** can represent another fundamental tool in the field of digital communication strategies. Its function is mainly to develop a community of interactive users.

Furthermore, **podcasts** have recently become more and more popular. They can be used to reach different types of users and, if a statistical agency decides to use them, these ones can be adopted to explain the concept of a basket of goods and services and the difference between the different indices that measure inflation in a language that is accessible to everyone, including non-experts. An example of this is the experience of ISTAT, which recently launched a podcast channel (currently available in Italian only) trying to address complex issues in a simple and accessible way, but without sacrificing scientific accuracy (https://www.istat.it/it/dati-alla-mano/italia-in-cifre/i-podcast). Based on data from the most recent Ipsos Digital Audio Survey (https://www.ipsos.com/it-it/podcast-indagini-ipsos-digital-audio-survey-podcast-qualita-strada-crescere), which explores audience preferences and digital audio usage patterns, it is evident that this communication format is gaining favour among an expanding segment of users. This is probably because it proves to be an increasingly effective communication method both for engaging and for getting people to change initially distorted or erroneous opinions on a given topic. (see Box x for the example on Reddit from Statistics Canada).

Other tools used to convey messages and content include, of course, **video content** (reels to explain the methodology, short interviews, etc.), mobile apps and social media advertising campaigns. Ad hoc, tailored videos in diverse formats are crafted to simplify the explanation of the Consumer Price Index (CPI) economic concept, disseminated through both the website and various social networks. It is not imperative to use all social media or be present on every platform. Each of them has its own peculiarities for which it is better suited to one topic rather than another.

As an alternative communication media - even main in some cases (crises, disasters, outbreaks, pandemics, etc.) - social media are crucial. Based on the Digital 2023 Global Overview Report 'we are social' and 'Meltwater' revealing that social media users have now reached 4.76 billion or approximately 59.4% of the global population, steadily increasing. Millennials, Generation Z, and younger generations grew up with social media as their daily medium for consuming news. Social media also have their own specificities which make NSO have various alternative forms of communication to reach the public. The use of social media has been practised in NSOs in various countries. For example, in one posting of statistical information, BPS Indonesia is able to reach tens of thousands to hundreds of thousands of social media users.

In addition to the tools listed above, digital communication makes use of a **series of activities** concerning **Search Engine Optimization** (SEO) and **digital PR**. The SEO identifies the set of activities aimed at making the site visible on search engines. By optimising the content, it is possible to convey qualified traffic to the website. Digital PR includes the set of public relations strategically entertained online with journalists, influencers, bloggers and stakeholders in order to increase our online presence and improve the reputation of an NSO.

The concept of inflation must therefore be explained using all these channels and tools at our disposal, so that our users learn how to independently distinguish real inflation from perceived inflation, but also where to go to retrieve official information amidst the multitude of unverified news in circulation.

Nevertheless, the paramount objective is to engage with our users effectively as communicators of official statistical information, especially when they reach out with concerns or inquiries about the data we disseminate. This interaction can occur through various channels, including social media (with a consistent reference to the institutional website for additional details in the dedicated web sections), email, or user platforms if the organisation has one.

Some practical examples related to what has been explored in this chapter can be consulted in the case studies in the appendix.

Box 3. Reddit “Ask Me Anything” initiative to reach out to audiences through social media (Statistics Canada)

Statistics Canada has been proactively engaging in social media using platforms such as Twitter, Facebook and LinkedIn to convey our messages that the CPI is a robust and accurate methodology to track consumer costs as well as answer social media enquiries.

On June 23 and November 21, 2022, the Agency hosted “Ask Me Anything” Q&A events (Reddit AMA) allowing subject-matter experts to answer questions Canadians have about the CPI, inflation, and the updates to the CPI basket. Another AMA will be held after the next annual basket update.

For more details see Box XX

7. Content Strategy

In a world of limitless resources, statistical agencies could spend time and energy on messaging in multiple ways on several channels. However, that’s not often the position of statistical organisations. We often have limited budgets and human resources to execute a communications strategy. This is why strategically mapping the right channel and content to the right audience is so important. If rumours about an NSO’s credibility are circulating on social media, posting a technical paper to an academic forum may not be the most effective method of combating attacks on the NSO’s brand.

It's important for NSOs to carefully map the correct message and channel to the audience.

One of the more frequent criticisms spurring from the COVID-19 pandemic was that the NSO-issued CPI didn’t reflect their perceived reality. For these users, it was important to focus more on showing, rather than telling the audience about the CPI. For these users, it was important to be brief and to focus effort at placing content on platforms they already visit, rather than directing these users to NSO websites. In our gathering of case studies there are a few practices to keep in mind when conveying the key messages.

Convey the message with empathy

Rapidly rising prices, particularly for food and household items, imposed hardships on many families and households. People tend to recall the last thing they purchased, and food and household items are among some of the most frequently purchased items. When the toilet paper they need is in short supply and twice as expensive, a CPI rising only 5% seems discordant with their most recent purchasing experience. In the example of ISTAT (Box 4), infusing their inquiry responses with empathy, ensured that the citizens felt understood and heard. By taking this step, NSOs can help increase their relevance to its constituents – that NSOs are truly trying to measure the human experience, rather than a faceless bureaucratic entity.

Box 4. Humanising the relationship between statistical organisation and the users - standard structure for user inquiry response (Italy ISTAT)

With specific reference to the issue of inflation and prices, ISTAT often receives messages from citizens with complaints and requests for clarification on what they believe are inaccurate data that do not correspond to the real economic situation in the country. With the collaboration with subject-matter experts, the answers we provide always follow a sort of standard structure. Moreover, in all answers we include a cross-reference to the website, so that users can go deeper into the answers.

- Starting the dialogue with an incipit that makes the user feel understood and welcomed; therefore, humanise the relationship between ISTAT and its users or respondents (ex: Dear … we understand the concerns that animate your message, and which are certainly dictated by the economic difficulties in which so many families in our Country find themselves…').
- Continue by entering into the methodological merits of the disputed data, reassuring the applicant with useful information to read differently the data that we provide and which are the result of careful work free from any conditioning (ex: 'However, we would like to reassure you that the basket that ISTAT uses to calculate inflation contains a good part of the products that you indicate in your message…)'
- Conclude by remaining available for any further clarification and always referring for further information to the corresponding dedicated sections of our corporate website.

Find the right channel!

NSOs took great care to show the relevance. At Statistics Canada, they began an Ask Me Anything Reddit session where users could ask questions (Box 3). This is a forum designed for people to ask questions of subject-matter experts. These Ask Me Anything types of forums are also empathic in some ways because they allow users to ask questions that they may not have asked in a typical email exchange. The relative anonymity of Reddit and structure of the forum allows for a free exchange of information, where users may already be visiting.

Show, rather than tell

Many NSOs during this time of rapidly rising inflation used short videos to demonstrate concepts. Most NSOs found these to be effective strategies for clearing up a misconception or developing understanding for topics such as: how data are collected and how NSOs account for "shrinkflation"—where the packages are smaller, but the prices stay the same. Videos sometimes can communicate much more effectively because of both visual and aural cues that the viewer receives. It also relies less heavily on the language centres of the brain for comprehension. Often, these videos were shared on social media platforms, again, meeting users where they are.

Make it relevant

NSOs generally put out national statistics and some smaller geographic regions, and perhaps CPIs for different population segments, but generally speaking, these are statistics showing the average experience across a wide range of individuals. Not everyone has the same purchasing habits. For example, urban dwellers who rely on walking or public transport may not purchase any fuel at all, while those who live further afield, may never purchase a train ticket. Sometimes these individual differences can make it difficult to explain the concepts. In Statistics Canada's example (Box 5), they developed an application that allows for citizens to develop their own CPI, while conveying the concepts of how the CPI works.

Box 5. Creating intuitive products explaining the price statistics (Statistics Canada)

To help citizens better understand CPI and address Canadians' concerns, Statistics Canada engaged consumers to address some of their concerns and well as expand data literacy and general public knowledge of the CPI program.

The Agency developed creative visual products to demonstrate that inflation is not a one-size-fits all measurement, but an economic reality that affects different citizens differently. These products included:

The Personal Inflation Calculator which is an interactive tool that allows consumers to calculate their personal inflation rate based on their household spending.
https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2020015-eng.htm

Short videos capsules explaining the CPI in plain language, featured on the website, social media. The videos include fictional characters that represent citizens in varying situations and regions with different consumption habits. https://www.statcan.gc.ca/en/sc/video/cpi2

During key theme weeks and month such as Financial Literacy Month, nutrition month, small business week we joined in on the conversation which provided us with a key opportunity to talk about how inflation affected specific groups and correct any disinformation

8. Evaluation

NSOs are in the measurement business, and so, in order to understand the value of the communications work, NSOs need to measure the outcomes. Despite being in the measurement business, measuring the success of our outreach can be tricky business.

One of the most commonly available metrics are those commonly reported through website metrics from organisations such as Google analytics. These sites offer pageviews, duration on the page, repeat visits, and how the individual arrived or left your page. Though these are easy measures to obtain, they don't often give enough information to understand success. Pageviews may tell an NSO the relative popularity of a page, but not if it met the user's needs. As more content is pushed through social media sites, web metrics can only tell part of the story.

Social media metrics can measure engagement. Likes and shares can indicate that a user has read or in some way engaged with the content. Likewise, impressions can give a sense of the "reach" of the content, that is, how many people saw and had the potential to read your content. With changing social media algorithms these measures can be difficult to interpret if you are more or less successful or a beneficiary or victim to a change in the algorithm. NSOs may be well served by examining which accounts provide the most influence for their social media. Because each social media platform has different user characteristics which will determine the success of NSO's communication strategy.

Another metric commonly used across NSOs is media mentions. There are several clipping services that can provide agency mentions in both traditional and social media. Some challenges can include calibrating the search term results to yield valuable information. In addition, these can sometimes provide a deluge of information and having some discernment in identifying major outlets or major amplifiers can be useful. Many NSOs use these metrics in seeing if news stories result from briefings or other outreach materials. Further analysis can be conducted to determine the sentiment and faithfulness of the reporting.

Though these three areas of metrics (website, social media, media mentions) help provide some quantitative data on outreach, most communications shops have to also perform some qualitative research to have a more complete picture of their outreach efforts. This may include analysing a particular campaign and identifying largest amplifiers and looking at their followers to examine what new audiences we may be reaching. Likewise, getting to know who the trolls and misinformers are can be helpful, if not much needed information in the communications arsenal. In addition, scouring comments can help identify questions or misunderstood concepts and can help communicators more finely tune their messages.

This section is certainly not an exhaustive list of all the types of metrics or success criteria communicators can use, but from many NSOs experience it's often a combination of several sources to help provide a more comprehensive picture.

Guideline is rather theoretical, we can us some parts of case studies to evaluate if theoretical principles are correctly applied.

Annex: Case Studies on Communication Inflation

1. U.S. Case Study - Communicating Inflation

With the onset of the COVID-19 pandemic, the U.S. Bureau of Labour Statistics (BLS) immediately shifted from in-person data collection to internet search, phone, and web scraping data collection. Prices in the United States for a number of staples such as toilet paper and flour skyrocketed during the initial onset of the pandemic. In addition, with global lockdowns, shortages existed for other consumer goods.

Collection information

With the rapid change from in-person collection to phone and internet data collection, BLS wanted to be transparent about the shift. In response, each month with the CPI release, tables containing collection method, response rates, and changes in standard errors were posted each month. In addition, BLS posted questions and answers to commonly asked questions as the pandemic wore on. Some of these questions covered concepts such as "How do you measure prices if the item is out of stock?"

To help gauge customer sentiment and feedback, BLS placed a short survey on each page with a simple interface: Did you find this helpful? Thumbs up/down. Customers were also presented with the option to leave a comment with their rating. Among these open-ended comments. Some users made suggestions on ways to make the pages more navigable or information that they would deem helpful. BLS implemented these suggestions within days (if data were available).

In addition to the short survey, BLS presented the entire spectrum of COVID-related information to its advisory panel and sought feedback on its approach to communicating on pandemic-related survey changes as well as COVID-related research. The advisory panel largely agreed with the approach and made a few suggestions for further data presentations such as a dashboard, which BLS released a few weeks later.

Concepts

In addition to the collection information, BLS saw an increase in the number of inquiries regarding the concepts for inflation. Many of these were around owners' equivalent rent, packaging sizes, quality adjustments, and methodology for new cars.

Owners' equivalent rent

Owners' equivalent rent has always been a complicated concept for data users. There's a misconception that mortgage payments would more accurately reflect the housing market pricing. While there is some truth to that argument, most mortgages are for 15- and 30-year terms when housing prices certainly adjust much more frequently than in 15-30-year increments. By asking homeowners what their home would rent for better captures housing market fluctuations. To help combat these misunderstandings BLS economists developed a fact sheet, a blog, and are currently working on a video to help explain this concept.

Shrinkflation

“Shrinkflation” or the inflation that consumers experience when their normal 8-ounce candy bar has the same price, but is now only 6 ounces. This concept is certainly more straightforward than some others. To help demonstrate how BLS takes into account these changes, BLS developed a short video. In addition, BLS secured some spots on major news networks as subject matter experts to explain how “shrinkflation” works and to assure the public that these price pain points are indeed captured by the survey.

Quality Adjustment

Another area of confusion was on quality adjustments, namely with respect to computer and communications equipment such as mobile phones. Because of each new issuance of computers and phone models, there’s often an increase in speed, memory, or other relevant features. Even though the sticker price increases, consumers are receiving more computing power, speed, or memory for the new device, therefore the inflation for these products may not rise as fast as consumers expect. This practice coupled with high demand for these devices and global supply chain issues, made understanding prices for these goods sometimes difficult to understand. In addition to fact sheets, BLS also served as subject matter experts for business media and local news spots to help explain this concept.

Autos

In the United States, both new and used cars were in short supply (and remain so to this day). Just prior to the pandemic, BLS began using a new (purchased) data source. Explaining the new method, how the data are used, and the accuracy of the data was critical. BLS developed questions and answers, a blog, and a few articles showcasing the method.

Doesn’t reflect my reality

Often citizens note that inflation doesn’t seem to reflect their own reality. There’s a sense that the inflation data are just developed from a room of statisticians without any link to the real world. BLS approached this by inviting news media as “ride along” data collectors. The first piece was a public radio story that aired in July 2021. Within a week, BLS had requests from 4 other major media outlets requesting to do “ride along” interviews. All these news spots both drove traffic to our website as well as a surged interest in applications to be a data collector for BLS. This strategy of embedding media with economists to show the process of collecting and the care and precision that goes into this work has been successful and we have replicated this for other surveys as well.

Though, BLS views the ride-along interviews to be its most effective strategy. BLS developed talking points and made some of the aforementioned conceptual information easier for users to find.

Combatting disinformation

Fake news!

On the day before the June 2022 CPI release, a doctored image of a CPI release is loaded to Twitter. At first glance this does look very much like a BLS-issued news release.

BLS knew it was a fake; the figure was incorrect. Also, upon closer inspection, the image seemed to be doctored. The original Twitter account that posted the image didn't have a large following nor was it an account that had frequently tagged BLS. We didn't immediately respond because it wasn't clear that the Tweet would go much further. However, within hours, major news media were calling to verify if the image was real or fake.

BLS certainly doesn't respond to every Tweet or comment that it's tagged in, but in the case of disinformation, we do have a policy of setting the record straight.

BLS put out the following Tweet

https://twitter.com/BLS_gov/status/1546964434530275330?cxt=HHwWhMC4haD99fcqAAAA

Of course, the comments that follow were not necessarily kind toward BLS, but the BLS Twitter account gained 5,000 followers overnight. The follower numbers have only increased since that time. Despite the snarky and jeering in the comments, it does seem that speaking truth in the face of disinformation raises the credibility of the agency.

Early release?

The latest wrinkle in our campaign against disinformation has been regarding whether the CPI release itself was released on time or subject to an early leak.

For several months market activity, namely in the futures market, has been rather active ahead of the CPI release. Often there is higher volumes of trading activity ahead of releases particularly during economic turning points. This activity has led business reporters to question if the news release was leaked ahead of time. BLS conducted extensive IT testing and reviewed all security procedures and data handling methods to ensure that there were no holes.

For now, we've developed talking points ensuring that our data are secured ahead of release time and that no unusual activity has taken place.

Meanwhile, some of these stories have developed into a case (by some news organizations) that BLS should reinstate its news embargo room where reporters were given a 30-minute early access window to a small set of releases (CPI being one). This was for the purpose of news agencies to be able to ask good questions and develop their news stories. However, after an inspector general and FBI investigations it was determined that the embargo room created an unfair advantage and was certainly being used for algorithmic trading, rather than story development. BLS has no intention of reopening the embargo room, but the trajectory of the story line does make one question if there isn't a financial motivation to reporting on this.

This particular issue is still a work in progress, but it does present a communication challenge for the CPI in that we need to continue to reinforce how securely we hold the data.

2. Italy Case Study - Building Trust with price statistics as a case study

How is price data communicated in Italy?

Regarding inflation and price statistics, ISTAT has a dedicated web section where one can find:

- a page with the explanation of the three consumer price indices that ISTAT calculates
    a. consumer price index for the whole nation (NIC), based on the entire present population's consumptions.
    b. consumer price index for blue and white-collar worker households (FOI) based on consumptions of households whose reference person is an employee.
    c. harmonised index of consumer prices (HICP), calculated according to the EU regulations in force.
- FAQ
- a page dedicated to the monetary revaluation, to allow users to better find the index for revaluation of rents and maintenance allowance (it is one of the most visited pages in our website).

For this survey data are collected through a range of outlets and for consumer prices of grocery products (packaged food, household and personal care goods) since 2018 we are using scanner data from large-scale retail trade (GDO) checkouts, which are provided to us thanks to the collaboration of ISTAT with the Association of Modern Distribution (ADM) and representatives of the main chains operating in Italy. Thus, there is no direct involvement of respondents.

Strategies and approaches to increase trust in ISTAT

With specific reference to the issue of inflation and prices, ISTAT often receives messages from citizens with complaints and requests for clarification on what they believe are inaccurate data that do not correspond to the real economic situation in the country. To date, to get in direct contact with our Institute, there are two systems:

1. Contact centre platform (the gateway to the communication and dissemination services provided by the Institute to its users, accessible from the Contacts section of our website): by navigating the portal, among the services offered there is also the 'User relations office', through which it is possible to send - among other things - complaints of various kinds. Most of those that arrive from our users or respondents are about statistical burden (on ISTAT surveys in general) or from citizens expressing misgivings about the reliability of our economic indicators, especially inflation, consumer price basket and GDP estimates.
2. Social media: on the various social platforms where we are present with an account, sometimes users directly ask for explanations or express doubts about our data through private messages or comments on our posts or tweets.

Either way we may receive such complaints or requests, the techniques to answer that we adopt are always the same, whether we respond directly via Contact centre platform or via our social media accounts.

Specifically, with the collaboration of directly competent colleagues (National Accounts and Prices for indicators of an economic nature, that are also the ones for which the complaints of citizens and/or respondents arrive most frequently) the answers we provide always follow a sort of standard structure. Moreover, in all answers we include a cross-reference to the website, so that users can go deeper into the answers.

Standard structure of this kind of answer in brief

1. starting the dialogue with an incipit that makes the user feel understood and welcomed; therefore, humanize the relationship between ISTAT and its users or respondents (ex: Dear … we understand the concerns that animate your message and which are certainly dictated by the economic difficulties in which so many families in our Country find themselves…').
2. continue by entering into the methodological merits of the disputed data, reassuring the applicant with useful information to read differently the data that we provide and which are the result of careful work free from any conditioning (ex: 'However, we would like to reassure you that the basket that ISTAT uses to calculate inflation contains a good part of the products that you indicate in your message…)'
3. conclude by remaining available for any further clarification and always referring for further information to the corresponding dedicated sections of our corporate website.

This is with regard to the direct contacts that ISTAT initiates with citizens - and respondents - with respect to its surveys (again through the Communication and Dissemination Directorate)

Actions that could be put in place to better communicate price indices

- communication campaigns (both through traditional channels and new media)

- development of statistical culture through promotional activities (statistical literacy events, dedicated website, podcasts and targeted videos)

- dedicated podcast

- **participation in television broadcasts by experts in the field explaining how inflation is measured**

Concepts to be conveyed

· One very important thing to make known is that according to the European System of National and Regional Accounts (ESA 2010), buying a house is an investment expense, not a consumption expense.

For this reason, the calculation of consumer price indexes considers among the expenses related to housing: supply of water, electricity, fuels (gas or heating oil), expenses for minor home repairs and maintenance (electrician, plumber, labourers, tiles, bathroom faucets, etc.), but not the mortgages that citizens take out to buy a home.

In Italy, however, there is a high percentage of the population living in home ownership and paying a substantial monthly mortgage payment, which results in high monthly expenses. This inevitably leads to a higher than measured perception of inflation.

Therefore, at least in our reality it is very important to explain why home mortgage expenses are not factored into inflation.

· Another important concept to convey is that which explains that inflation is measured by three different indices. Among these, the one that most reflects the lives of ordinary people is the consumer price index for blue and white-collar worker households (FOI) based on consumptions of households whose reference person is an employee. In fact, it is the FOI that is used to revalue rents and spousal maintenance payments.

3. Indonesia Case Study - Challenges for price statistics in Indonesia

BPS as Indonesia's NSO has had several issues regarding price statistics in recent years, among others:

1. Facing uncertainty of economic conditions during recent years, the President made a decision to suppress inflation. As inflation is aggregated from regions, the government orders all regions to work on it. So far, BPS has calculated national inflation from 90 cities from all cities in Indonesia, totaling 514 cities. On the contrary to macro indicators, BPS was expected to provide indicators to evaluate state government achievement. Calculating city-wide inflation would result in swelling in the budget without assigning a clear role. We use the inflation proxy approach and the sister city approach to calculate urban inflation outside of the 90 main cities that contribute significantly to national inflation.

2. The weight of the impact of price increases in each region is different, causing BPS to receive many protests from the local government. For example, when there is an increase in the national price of electricity, the impact of the increase in electricity can cause an increase in the prices of other goods that vary by region. This is of course because the number of electricity users in each region is different. Good communication between agencies is needed.

3. Calculation of inflation in Indonesia is only limited based on price, not size or volume. Last year we had a problem about the scarcity of oil in Indonesia. This is because there is an oil mafia that hoards oil. However, the government issued a policy to reduce oil prices to 14,000 rupiah. When the inflation figures were released, the public protested against BPS how it was possible for a commodity to be scarce, but instead there was deflation in several regions. The calculation of inflation in Indonesia cannot capture the total volume of commodities sold, so it is only based on the price of a commodity.

4. Differences in the price of a commodity in modern markets and traditional markets are often different. This is because the modern market tends to get a more guaranteed supply of products so that the price tends to be stable, while the traditional market is the opposite. BPS often gets criticism because the prices perceived by traditional communities tend to be higher than the prices released by BPS.

5. Based on experience, it is easier for BPS to build communication with the expert community. BPS gains considerable trust from the expert community. We use an open discussion approach regarding the methodology we use. On the other hand, BPS has more difficulty having discussions with the general public.

4. Canada Case Study - Consumer Price Index: Communications Challenges

Recently, consumers have faced rising costs in many of their day-to-day expenditures due to issues such as supply chain disruptions, oil price fluctuations, rising housing prices and changes in consumer demand brought on by COVID-19. Canada’s Consumer Price Index (CPI), a year-over-year comparison of the cost of goods and services published monthly, has reflected the impact of these unprecedented events, surging to a series of highs not seen in decades.

Despite these historic rates, some have argued that the headline CPI figure does not accurately reflect the rising costs of many everyday products. This has sparked ongoing public debate within the political arena, academia, industry and media about how Statistics Canada measures inflation; and whether the Statistics Canada's CPI is an accurate indicator of the reality faced by Canadian consumers.

This debate has spilled over into the public forum, where there is a general lack of understanding about the CPI. Many Canadians do not understand how the CPI figure affects their day-to-day lives, and how it is used by decision-makers.

In response, Statistics Canada's Communications Branch has developed annual communications plans to counter negative narratives regarding the Agency's methodology for calculating the CPI and educate the general public to curb ongoing mis- and disinformation. The Communications Branch has worked in cooperation with subject matter experts to deliver the Agency's message that Statistics Canada's methodology to calculate the CPI is robust and meets internationally recognized statistical standards.

The annual communications plans include rollouts of announcements and strategies to promote the Agency's messaging around the CPI. Additionally, the Communications Branch has developed a comprehensive set of "evergreen" key messages to be used by the media relations and speech writing teams.

Below are some areas where there have been ongoing challenges:

Traditional Media

Through traditional media (such as Op-Eds), some critics have specifically advocated for different methodologies for calculating the impact of food, housing and used car prices.

Agency Mitigation Strategies:

- The Communications Branch's media relations team continues to monitor traditional media sources regarding Statistic Canada's methodology for calculating the CPI. Where necessary, the Agency engages traditional media to "detect and correct" egregious errors in reporting.
- The Agency has also reached out directly to critics to address their public criticisms of the Agency. The objective is to engage in a collegial conversation with the Agency's critics and directly answer their criticisms regarding methodology, and address and concerns they may have.
- On October 23, 2022, the Chief Statistician appeared on a nationally broadcast news show, *Power and Politics*, to answer questions about the CPI.

Social Media

Recent social trends reports show that the CPI releases continued to garner much engagement in the social environment (social media and digital news media). Many users simply share facts from our CPI monthly results, but there has been an increasing number of social media users sharing negative commentary as inflation has increased.

Common concerns expressed on social media include:

- the growing food insecurity, gas prices, and overall cost of living
- distrust in StatCan's calculations of the CPI, for example in comparison to US inflation rates, or in comparison to consumer perceptions
- the impact of the inflation rate on the Bank of Canada's decision to raise interest rates
- a general politicisation of inflation and laying the blame on political parties, policies or figures, for example, linking inflation to carbon taxes or economic stimulus

Agency Mitigation Strategies:

- Statistics Canada has been proactively engaging in social media using platforms such as Twitter, Facebook and LinkedIn to convey our messages that the CPI is a robust and accurate methodology to track consumer costs as well as answer social media enquiries.
- On June 23 and November 21, 2022, the Agency hosted "Ask Me Anything" Q&A events (Reddit AMA) allowing subject-matter experts to answer questions Canadians have about the CPI, inflation, and the updates to the CPI basket.

This on-line event was a great opportunity to engage with an active online community on a topic that had been of interest to those on the platform. It was also an opportunity to engage with Canadians while answering their questions, addressing some of their concerns, as well as helping to expand data literacy and general public knowledge of how CPI is calculated.

Political Environment

On January 17, 2022, and again on March 31, 2022, Statistics Canada's Chief Statistician and senior management colleagues appeared before the House of Commons Standing Committee on Finance (FINA) to discuss and answer questions about the CPI.

Some opposition members of Parliament expressed doubt in the Agency's methodology for calculating inflation, specifically the way in which the CPI accounts for shelter costs amid soaring home prices.

Again, on March 6, 2023, Statistic Canada officials appeared at the House of Commons' Standing Committee on Agriculture and Agri-Food (AGRI) as part of a panel of witnesses in view of its study of Food Price Inflation.

***Agency Mitigation Strategies*:**

- The Communications Branch continues to support our subject matter experts and help develop opening remarks and anticipated questions and answers.

5. Ireland Case Study - Consumer Price Index – Communication Challenges

In common with other countries Ireland has experienced surging inflation rates in recent months, causing widespread public comment across traditional media, social media, government and the wider public. While there has been much comment and debate about the impact of inflation across society, there has been little, if any, about the validity of the CSO figures or its methodology.

Inflation rates in the energy and food and drink sectors are key drivers of the overall inflation rate, and both rates significantly exceed the monthly CPI rate. However, there has been little comment on the general experience of inflation being higher than the published rate. Our CPI releases identify the main drivers and relevant rates as part of the key findings. The visibility of the higher rates in the release may be a factor in the general public acceptance.

Messaging from Utility and Mobile Phone companies

One challenge we have faced arises from communication between utility and mobile companies and their customers. A number of their websites have made reference to the CSO 'setting' the inflation rates and when customers have complained about price increases staff have referred them to the CSO as the 'responsible' body. This caused an increase in calls and complaints from members of the public who were essentially blaming the CSO for the increased cost of their bills.

Remedial Action by CSO.

We engaged with the companies, requesting them to ensure that any references to the CSO and the CPI on their website referenced information published by the CSO rather than rates set. We also requested them to ensure that their staff were aware that the CSO measured inflation rather than being responsible for it.

We put an explanation of how the CPI is calculated on our homepage with a link to an accompanying video explainer.
https://www.cso.ie/en/releasesandpublications/in/cpi/informationnote-thecpicollectspricesbutdoesnotsetchargesappliedtocustomers/

There are still references to the CPI as the basis for price increases on several websites. However it is now clearer that the companies are using the published rate rather than following any instruction or policy from the CSO.

The number of calls to our offices in relation to this has dropped significantly.