SEMINAR MATERIALS

Our Digital Future

Trade Union Leaders

Asia Pacific
2022

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Our Digital Future

PSIs Our Digital Future Project – a 3 year capacity-building project aimed to equip unions with the right know-how and know-what to shape digitalisation – is well underway.

In 2021 PSI has trained regional Digital Rights Organisers - a group of union experts who will be the regions' resources and experts on digital change.

As the digitalisation of public services and jobs continues at great speed, especially you the union leaders are faced with new areas of responsibility. New union policies and strategies are called for: for example, workers' data need to be protected, workers' data rights must be improved, and the unions must have a seat at the table in the governance of digital systems in workplaces. This puts new demands on external and internal union operations – what policies, skills and capacities are needed to ensure quality public services and maintain union power.

This compendium of tools and processes aims to support union leaders as they either pivot to embarking on digital policies and practices or continue to develop them. Crucially, as these changes are profound and linked to both trial and error, unions must cooperate and share both good and bad practices, as well as queries and uncertainties. Helping one another to leapfrog into a more sustainable digital transformation that puts members' privacy and rights at the core of all new services, will be key for a strong union response going forward.

In the following, 5 key tools will be presented. They too will lay the foundation for the high-level union leader seminars to be held in 2022:

1. PSIs Digital Impact Framework that will support unions in identifying what strategies and internal administrative and operational changes could be made to ensure a coherent digital transformation
2. PSIs database on collective bargaining clauses
3. A guide to improving workers' data rights
4. A guide to ensure that workers are party to the governance of algorithmic systems in workplaces
5. And lastly, examples of Tech for Good – useful digital tools and systems that responsibly can empower workers and bring their voices and lived experiences to the very forefront of campaigns, organising and collective bargaining.

In the next two chapters, these tools and systems will be described. Note that the Collective Bargaining Database will soon be online accessible to unions at the press of a button.

Union Responses I

PSI'S DIGITAL IMPACT FRAMEWORK, COLLECTIVE BARGAINING DATABASE AND WORKERS DATA RIGHTS

In this section we introduce three tools that are designed to support unions in their digital impact. The first tool is PSIs digital impact framework. It is a guide to support unions in their transformation processes as they adopt digital strategies and policies and transform internal union operations. The second tools is PSIs collective bargaining database – an open resource to offer unions an overview of the digitally-related clauses that unions already have negotiated in collective agreements. Model articles will be added in the areas where no articles yet exist. The third tool can be used to actualise some of the themes of the database, namely those on workers' collective data rights (theme 5) and the governance of algorithmic systems (theme 6).

Tool 1: PSI's Digital Impact Framework

Drawing inspiration from existing digital or data maturity frameworks and the TUCs digital health check, PSIs online Digital Impact Framework (DIF) provides union leaders with a union-wide approach to digital transformation.

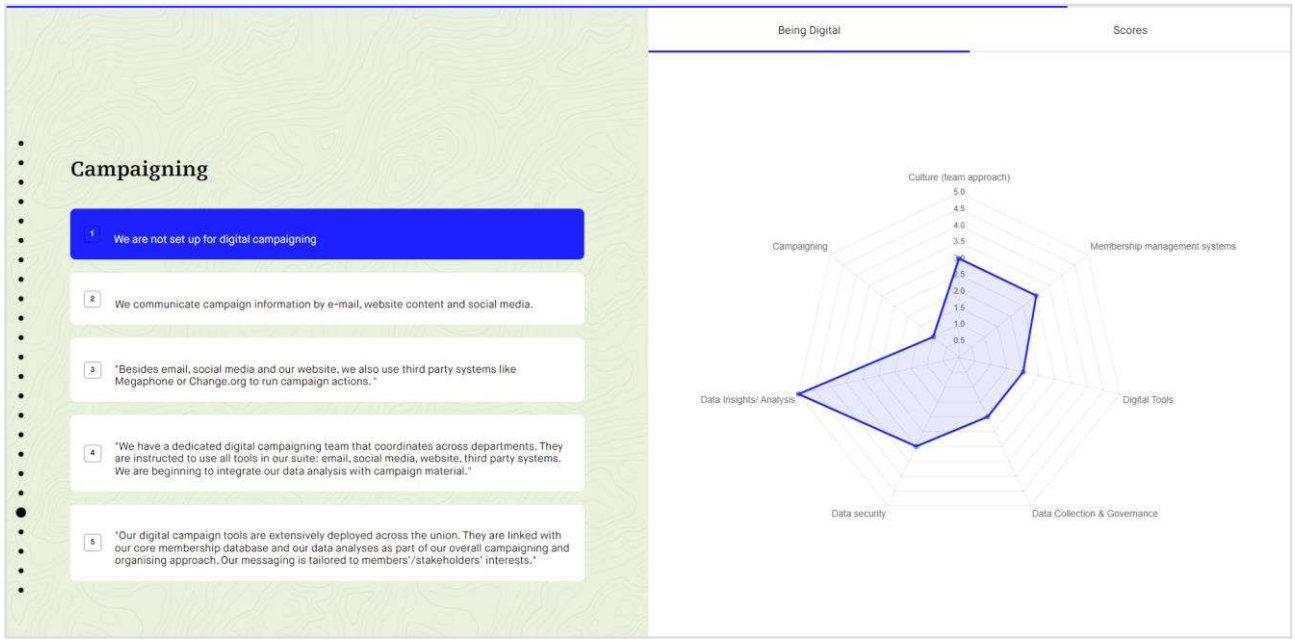

Figure 1: Screenshot from PSIs Digital Impact Framework

The DIF is divided into 2 main components: 1. "Doing Digital" - Strategy and Policy and 2. "Being Digital – "Internal Operations:

Here is how you can use the framework:

1. Go through the framework either individually or as a leadership team. Select the position on each dimension that *most resembles* your current level of impact.
2. Discuss for each dimension why you are where you are, and what it would take to move up a level or two.
3. Select one or two dimensions to work on over the next months.
4. Download the framework and date it.
5. Decide as a team how you can increase you impact on the selected dimensions.
6. Set milestones, establish responsibilities and agree to reconvene periodically to discuss progress.
7. Retake the framework noticing how improvements on the selected dimensions can impact other dimensions.
8. Chose new dimensions to work on
9. Download and date.

The framework builds on two fundamental premises. It urges unions to create a responsible and privacy-preserving digital transformation that is driven by conscious purposes and goals. It also affords value to a union-wide digital upskilling whereby awareness to the potentials of digital tools is mainstreamed throughout the organisation and across teams.

The Digital Impact Framework is online and is currently available in English, French, Spanish and Portuguese. Choose your language on the top right of the screen.

Tool 2: PSIs Collective Bargaining Database

To support unions in their strategy and policy work, and acknowledging the strength in global sharing, PSI conducted research into collective bargaining clauses that relate to the digitalisation of work in public services. This research has resulted in the creation of a list of themes that unions have, or could, bargain around.

The themes and the underlying database will be turned into an online resource that will help PSI affiliates swiftly identify the issues they are interested in and draw inspiration from unions who have bargained on them. In 2022, existing clauses will be supplemented by model clauses within the themes where unions yet haven't bargained.

The themes are shown in the table below. Also note that the online version will be translated into several languages and will include the possibility for affiliates to upload and share their own articles and clauses.

1	**Workers' rights in the context of public service reforms involving new technology** ○ Anticipation of change and information and consultation rights ○ Involvement in decision making and investment planning ○ Public service reform impact on services and quality ○ Period reassessment of new technologies (impact and risk assessments)
2	**Equal opportunities and diversity** ○ Gender equality, diversity and equal opportunities ○ Fighting digital divide, discrimination and bias ○ Digital inclusion ○ Equal opportunities assessment
3	**Employment, jobs, skills and lifelong learning** ○ Job security and job protection ○ Employability and career security ○ Further training, upskilling, reskilling and lifelong learning ○ Job profiles and job descriptions ○ Right to learn and learning time ○ E-learning, self-learning and blended learning
4	**Work-life balance, telework and platform workers' rights** ○ Teleworking / mobile work / remote working / working from home / 'smart' working / 'blended working' ○ Working time ○ Work-life balance, availability, reachability, right to disconnect ○ New work / platform work / crowd working

5	**Workers' data rights and protection** ○ Compliance with national and international regulation (e.g. GDPR) ○ Data security and protection ○ Data ownership and control, data storage and interferences ○ Data ethics and ethical codes
6	**Workers' rights on digital tools, artificial intelligence, and algorithmic management** ○ Right to know about, edit and adjust digital surveillance and control tools ○ AI ethics and technology restriction clauses ○ Workers' rights in AI and algorithmic management ○ Technology restriction clauses
7	**Health and safety protection** ○ Digital work environment ○ IT related emerging risks assessment ○ Psychological and psycho-social stress/risks ○ Ergonomics / usability ○ Screen time

Table 1: The Collective Bargaining Taxonomy developed by PSI 2021

Tool 3: Workers Data Rights

Exacerbated by the COVID19 pandemic, and the extensive growth in worker monitoring and surveillance software tools, the shift towards data-driven workplaces is occurring at great speed. However, workers' rights to control the data collected on them are poorly defined across the world. This includes workers' right to help design work using data collected about them and their work efforts.

Relating to the Digital impact Framework's strategy and policy transformation and supporting unions across the world in addressing the missing workers' data rights (theme 5 of the taxonomy), we have developed a guide called The Data Lifecycle at Work. It consists of four phases of data handling in workplaces: from data collection, to analysis, to storage and onwards to data offboarding. In the following, we will present the tool. More in-depth information about how employers collect worker data, and what they use it for are included in the addendum.

Negotiating the Data Lifecycle for Workers' Collective Data Rights

To bridge legal gaps, unions could beneficially negotiate around the Data Lifecycle at Work. From the process of collecting data and the codetermination over the sources of these data, to how these data are analysed, for what purposes, and what the workers' rights are to know about these inferences and edit them, to knowing under which jurisdiction the data is stored, to finally having a say over what happens to the data. Is it sold? To whom?

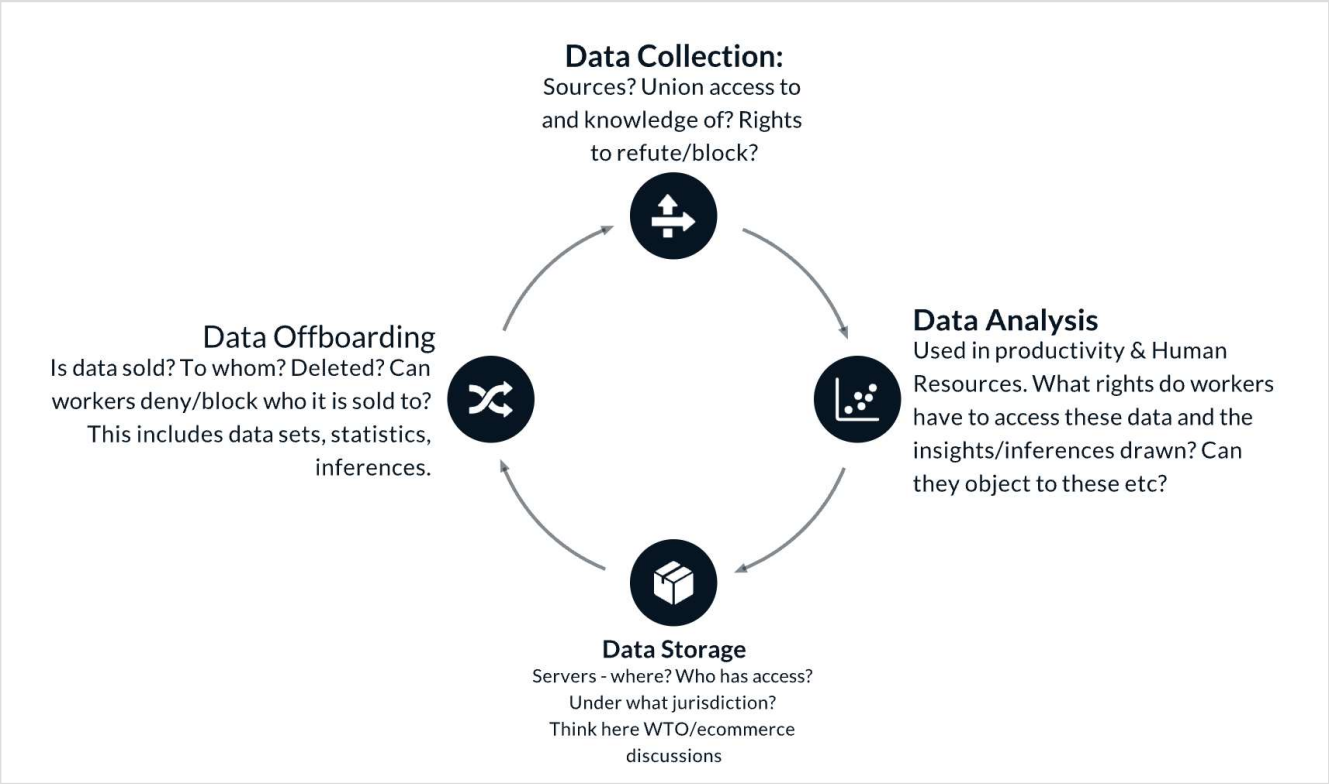

Figure 2: Negotiating the Data Lifecycle at Work

Data Collection

The data-collection phase covers internal and external collection tools, the sources of the data, whether shop stewards and workers have been informed about the intended tools and whether they have the right to rebut or reject them. Much data extraction is hidden from the worker (or citizen) and management must be held accountable.

Data Analysis

In the data-analysis phase, unions must cover the regulatory gaps which have been identified—namely the lack of rights regarding the inferences (the profiles, the statistical probabilities) drawn from the data and churned through algorithmic systems. Such inferences can be used to determine an optimal scheduling, wages (if

linked to performance metrics) or, in human resources, whom to hire, promote or fire. They can be used to predict behaviour based on historic patterns, emotional and/or activity data.

Access to the inferences is key to the empowerment of workers and indeed to human rights. Workers should have greater insight into, and access to, these inferences and rights to rectify, block or even delete them. Without these rights, there will be few checks and balances on management's use of algorithmic systems or on data-generated discrimination and bias.

Combined with the data collection phase, unions could here beneficially negotiate around the purposes of data collection and analysis. This includes determining the redlines for what the data collected can be used for, and what it can't.

Example: a union from the US has negotiated that location data from drivers collected to ensure their safety cannot be used in performance evaluations of said workers.

Data Storage

The data-storage phase is important, not least in relation to trade agreements and the negotiations over data flows. For example, e-commerce negotiations on the 'free flow of data', within, and on the fringes of, the World Trade Organization, aim to remove any nation's right to localise data within the territory of the nation. This would entail data being moved across borders to what we can expect would be areas of least privacy protection. They would then be used, sold, rebundled and sold again in whatever way corporations saw fit.

If data is allowed to flow freely across the world and workers have not secured much stronger data rights via national law or collective agreements, their access to and control over these data would be weaker still.

Data Offboarding

Unions must also be vigilant in the data off-boarding phase. This refers to the deletion of data but also the sale and transfer of data sets, with associated inferences and profiles, to third parties. Unions should negotiate much better rights to know what is being off-boarded and to whom, with scope to object to or even

block the process—this is hugely important considering the e-commerce trade negotiations mentioned above. Equally, unions should as a minimum have the right to request that data sets and inferences are deleted when their original purpose has been fulfilled.

> **Example:** A union in Ireland has successfully negotiated that the employer cannot sell any data sets that include workers' personal data.

With these rights, the worst harms inflicted upon workers would be avoided. At the same time, digital technologies could be designed and deployed to benefit both workers and employers. Here's a few examples:

Union Responses II

CO-GOVERNING ALGORITHMIC SYSTEMS GUIDE & LEVERAGING THE POWER OF DIGITAL TECH

In this last chapter, we will be presenting a guide to how unions can start holding management accountable and responsible for their use of digital technologies. The Co-Governance of Algorithmic Systems Guide provides unions with the top-level questions and topics that will start the process of ensuring that digital technologies benefit, not harm workers. We end this chapter with a run through of examples of what is termed Digital Public Goods (DPG) - open-source software, open data, open AI models, open standards and open content that adhere to privacy and other applicable laws and best practices, do no harm by design, and help attain the SDGs. DPGs can empower workers and unions by giving workers control over their data without violating privacy rights.

Tool 4: The Co-Governance of Algorithmic Systems

Strongly linked to workers' data rights is the issue of having a firm seat at the table with regards to the co-governance of algorithmic systems in workplaces (theme 6 of the taxonomy). Algorithmic systems include Artificial Intelligence, Deep Learning and Machine Learning tools, but importantly also relate to more basic systemic analysis conducted in spreadsheets, or data analysis systems. Common for all of them is that they rely on data inputs, and they create outputs that can be predictions, probabilities, comparisons. In other words, the outputs are judgements.

In public services, many of these worker-management systems are private sector systems that the public services have licensed in are procured to third parties. This makes the co-governance even more important as it begs the questions: who has determined the purpose of the systems, the instructions inside the systems and the data used? Who also – the deploying public service or the designers/vendors – control and can determine any changes to these systems? Where does all of this leave worker's rights and workers' possibilities to demand change to them?

To support unions in their unravelling of these system, the Co-Governance of Algorithmic Systems Guide lists 19 questions bucketed into 7 distinct themes. The themes are:

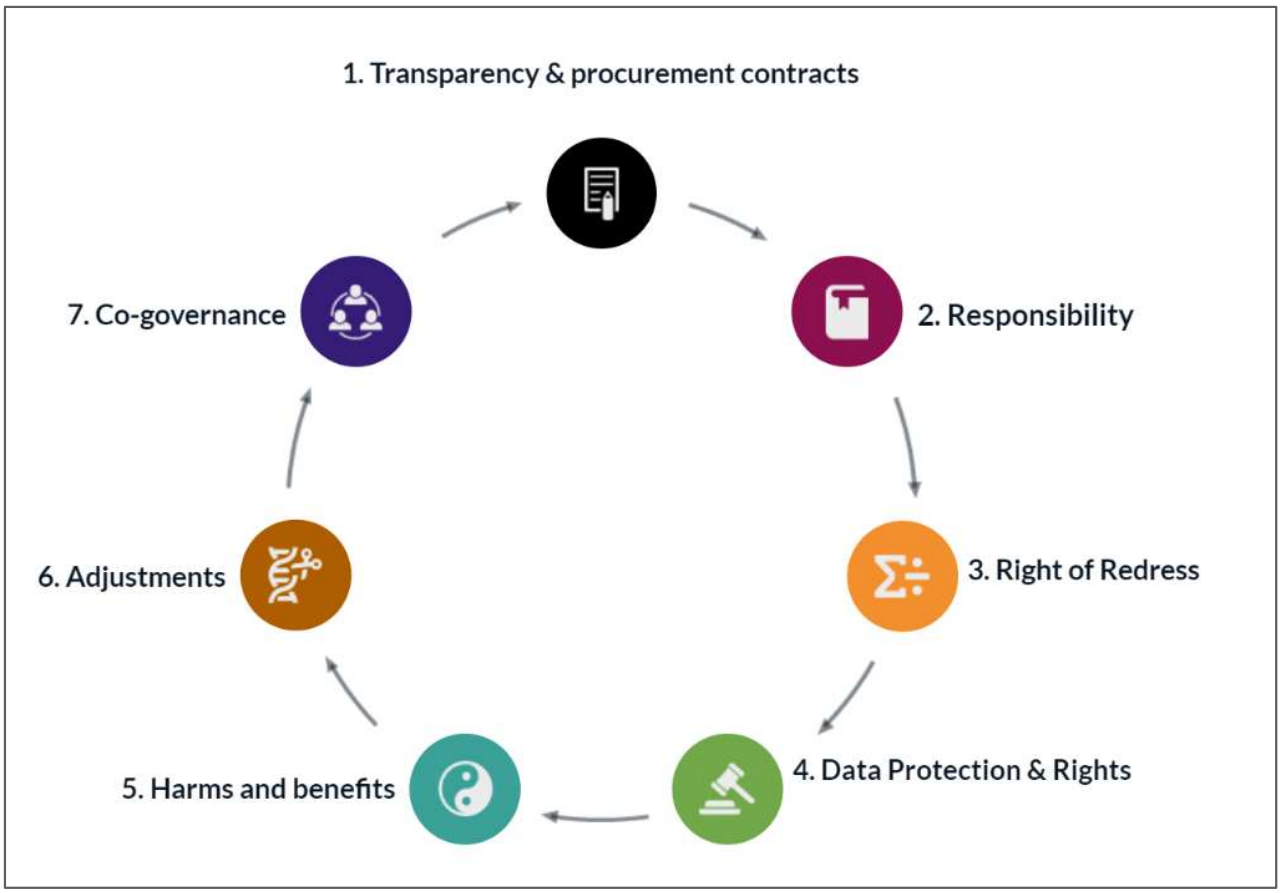

Figure 3: The seven themes of the co-governance of algorithmic systems guide

These 7 themes are key for ensuring that management is held responsible, liable and in control of procured or in-house designed digital systems. Under each theme, the following questions should be addressed to management:

Transparency & Procurement	1. Which digital systems is the employer using that affect workers and their working conditions? What are the purposes of these systems?
	2. Who designed and owns these systems? Who are the developers and vendors?
	3. What are the contractual arrangements between developer, vendor and the employer with regards to data access and control as well as system monitoring, maintenance, and redesign?
	4. What transparency measures can be established to ensure disclosure of any algorithms being used in the digital system?
Responsibility	5. What oversight mechanisms does management have in place? Who is involved?
	6. What remedies are in place if a system fails its objectives, harms workers, and/or if management fails to govern the digital system?
	7. How do you ensure the system is in compliance with existing laws?
	8. Which managers are accountable and responsible for these systems?
Right of Redress	9. What mechanisms can be established to ensure that workers have the right to challenge actions and decisions taken by management that are assisted by algorithms?
Data protection and rights	10. If personal data and personally identifiable information are processed in these systems, what protections for that data currently exist? What additional protections are needed?
	11. Are datasets that include workers' personal data and personally identifiable information sold or moved outside the company?

	12. What mechanisms can be established to ensure workers have the right to access and correct personal data and personally identifiable information?
Harms and benefits	13. What assessments have you and/or a third party made of risks and impacts (positive as negative) on workers' wellbeing and working conditions?
	14. How do you control for and monitor possible worker harms in these systems, e.g., health and safety, discrimination and bias, work intensification, deskilling?
	15. What is your plan for periodically reassessing the systems for unintended effects/impacts?
Adjustments	16. What are the mechanisms and procedures for amending the digital systems?
	17. How will you log your assessments and adjustments?
Co-governance	18. What mechanisms can you put in place, so you are party to this governance?
	19. What skills and competencies do management and workers need to implement, govern, and assess the digital systems responsibly and knowledgeably?

Table 2: The seven themes and questions in the co-governance of algorithmic systems guide

Why these themes?

Whereas these themes and questions in no way are exhaustive, and demand some practice, not least in relation to how to react to managers' responses, they are the most important questions to be asked. Here's why.

Transparency and Procurement Contracts

- To address the fact that many workers/shop stewards express that they do not know what algorithmic systems are in their workplaces, these first questions are key to ensuring transparency.
- Many of these systems are third party systems that the deploying organisation either licenses or buys the rights to use. Depending on the contract between developer/vendor and deployer, the rights to adjust the algorithm(s) can vary. Also, it is pertinent for workers to know who

(developer/vendor and/or deployer) has access and control over the data extracted.

Responsibility

- It is clear that the introduction of algorithmic systems in workplaces is influencing managerial responsibilities. Many shop stewards report that it is unclear who they should turn to for answers and responses. Is it the local/central human resources department, or the IT department? Who is doing the impact assessments and governing the effects of the technologies. Workers have a right to know.

Right of redress

- Given the real and potential impacts of algorithmic systems on workers, workers must have the right to challenge actions and decisions based solely or partially on these systems.

Data Protection and Rights

- In line with Data Lifecycle at Work, workers should as a minimum have certain rights to know what data is collected, for what reasons and what happens to the data post extraction.
- However, workers must also have the right to co-determine and edit these data.

Harms and Benefits

- These questions relate very much to probing management for what assessments or audits they have conducted on these algorithmic systems. What remedies management have in place if unintentional or intentional harms are identified?

Adjustments

- This theme relates to theme 1 on transparency and procurement. It asks what rights management and workers have to amend the algorithms if harms or other adversarial impacts have been identified. This is pertinent in the cases where the deploying public service is using 3rd party systems.

Co-governance

- The last theme builds on the others by asking what mechanisms can be put in place so workers and management can co-govern algorithmic systems. Given

that the managerial lines of responsibility can be far-removed from the affected workers, it is pertinent that those who have the closest contact to workers are party to the governance of these systems.

- This theme also addresses the question of whether management and workers have the necessary skills and knowledge to successfully co-govern algorithmic systems. There is a dangerous assumption in many governance models that management actually understands the potential impacts of the algorithmic systems they are deploying. Additional training for workers and managers will be needed.

Tool 5: Digital Public Goods

Digital Public Goods (DPG) are defined as "open source software, open data, open AI models, open standards and open content that adhere to privacy and other applicable laws and best practices, do no harm, and help attain the SDGs."

The Digital Public Goods Alliance was incubated by The Government of Norway and The United Nations Children's Fund (UNICEF) and has since grown to be an alliance consisting of several foundations, UN bodies, software developers and national government development agencies. Their aim is to accelerate the attainment of the sustainable development goals in low- and middle-income countries by facilitating the discovery, development, use of, and investment in digital public goods.

Much of what we can call Tech For Good belongs under the umbrella of Digital Public Goods, and is something unions beneficially could advocate for as a means of union and civil society empowerment across the world.

Becoming responsibly more impactful requires that unions pivot towards using digital systems and tools that have privacy at their core. Many of the most popular tools, such as Office365, WhatsApp, and most other third-party systems do not have privacy at their core.

Whilst changing systems and tools is a long-term strategy, some smaller steps can be made along the way to improve the protection of union data as well as to responsibly source worker data to improve the union's campaigning and organising. In the following we will introduce a few recommended systems and tools.

Signal – a responsible, safe messaging tool

WhatsApp is owned by Facebook. The data is shared between the two companies adding to the data extraction and profiling of users. For unions this can be very

dangerous. The companies gain access to your members' contact information, but also to whatever you share with your contacts and groups.

Fortunately, alternatives exist. One of the most used is called Signal. It is owned by a charity in the United States, and importantly does not sell data, nor access to users' data.

Whilst it will take some time and effort to move your contacts and groups from WhatsApp to Signal, it is well worth it. Here is a guide that will help you through each step: https://psicomms.notion.site/How-to-move-to-signal-263d7181a61e4fd898ded8ff03dc89eb

WeClock – a means to sourcing worker data responsibly

Currently, those who hold the data are those that have the power to exert control over workers and the market. Essentially, they also have the power to set the narrative of "truth" about working conditions, societal needs and the benefits of digital technologies. To break this power grab, unions could beneficially collect workers' data so they through campaigning and organising can offer an alternative version of the often corporate-driven one. In line with the Digital Impact Framework, unions should prioritise the privacy-preserving collection of members' data. Here's an example of how this could be done.

Developed by workers for workers, WeClock is an open-source app. It works by tapping into the data that some of the 14 sensors on a mobile phone produce and gives the worker full control over that data. There is no third-party data snooping, no secret access. WeClock is designed to help workers and their unions combat wage theft and promote worker wellbeing.

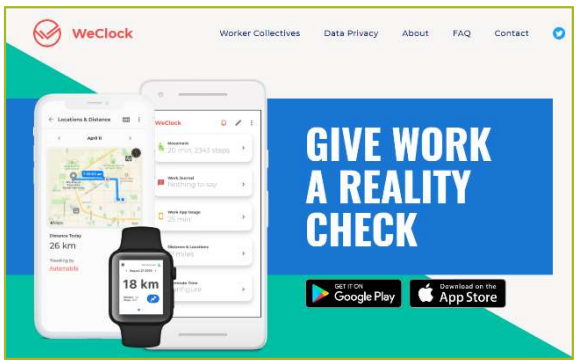

Figure 4: WeClock - an opensource tool for workers and unions. www.weclock.it

For example, WeClock can help workers prove when they arrived at the workplace (clocked in) and left again (clocked out). It can for example log app usage to help workers prove that they are using work apps – a helpful tool against the "always on" work culture. It can log location and movement to show how far workers commute or travel for work, where they are, whether they are on their feet or sitting down. Do they get breaks? Are they compensated for the time spent?

By logging when workers enter work and leave again, WeClock can support union campaigns on working time. With good data analysis and a group of workers' data, unions can begin the important journey of data storytelling pushing back on the employer-led or tech world led narratives that dominates much of our labour markets. WeClock can be used off-line and therefore also in geographies with high data costs. A union guide for how to use WeClock in organising and campaigning is available too.

Lighthouse - stewarding that data carefully

Figure 5: Screenshot from Lighthouse hosted and made available by Prospect in the UK

Collecting workers' data requires care and protection of that data. To support unions in creating internal data stewardship policies and practices, Lighthouse: a guide to good data stewardship for trade unions – an opensource tool – can be of great help

Lighthouse is designed to be used by leadership and/or teams who are embarking on using digital tools to gather workers' data. It takes participants through a series of questions and themes and offers advice on how to ensure the union is collecting only the necessary data, is protecting it and using it for the purposes defined to the workers.

Other inspirational tools and systems

Adding to this 2019 report called Connective Action which presents useful tools and systems built by or for the union movement, the following newer systems are worth noting.

1. Clean Insights

   Unlike many websites and app user tracking systems such as Google Analytics, Clean Insights focusses on assisting in answering key questions about web/app usage patterns without enabling an invasive surveillance of all user habits. A really sensible alternative to the mainstream ones.

2. GigBox

   GigBox was developed by Dan Calacci – a phd candidate at the MIT Media Lab in cooperation with coworker.org. It aims to help workers collect + pool data about their experience to help them build power, help researchers understand the gig economy more fully, and help advocates more effectively plan for the future of work. One of GigBox's success was to help gig workers fight back against a platform's pay algorithm. Read more here

One thing is clear, for unions to successfully fight back against the harms workers (and citizens) are subject to in the current digital environment, alternatives need to be pursued and tabled by the unions. These tools aim to do just that.

Summary

Just as unions have protected our collective rights on the job for hundreds of years – our health and safety, our wages and benefits, we now must demand that our labour is protected in the digital age. In the above we have introduced several tools and guides that are aimed at supporting and inspiring unions to do just that.

What is clear is that unions must push for an alternative digital ethos that is built on rights and privacy. One where data is treated with the utmost of care, and not regarded as a commodity that can be bought and sold. Also, one where the uneven harms and impacts of digital technologies are acknowledged and unions have a seat at the table in ensuring that all digital technologies in workplaces are governed responsibly.

Addendum 1: Data Rights – Additional Information

How do employers collect data?

Importantly, all worker management digital services and systems in workplaces extract workers' data. We can identify 5 ways that this takes place:

Direct collection: Your CV contains lots of valuable information: previous employers, to education, spare time interests and other activities. Employers can also directly collect data from their customers (what they buy, how often, what goods or services they look at on the website etc.) or from their current employees (for example how often they are sick, how many hours or shifts they work etc.).

Purchased data profiles: There are many so-called data brokers out there in the world whose whole business model is concerned with the buying, bundling and selling of data sets. These can be aggregated traffic data sets, or data about the "trustworthiness" of particular groups of people, or profiles about credit scores, health or education levels per geography or socio-economic status.

Data traces extraction: When you log on to your work email or server you are leaving a trace of your activities. What time did you log on, which documents have you accessed? But also some systems, such as Office365, create reports of how "productive" you have been, how much "concentration" time you have had etc. Does the management see these measures too?

Sensor derived data: Some offices have sensors throughout the building: Under desks to message how often that desk is used and vacated. On doors to see how often a room is used, or not. Some workers have to use handheld scanners or wearables such as a Fitbit or location tracking systems. Others have security systems in their work badge to help move throughout the building. All of these produce data that is, or can be, used by management.

Audio and Visual Data: Other types of data are derived from audio-visual systems. Call center workers' tone of voice and what they say are measured and evaluated. Mobile phone call tapping. CCTV or Facial recognition is used to locate and identify workers. Although highly criticised, some of these systems have been used to predict the emotional state of mind of workers: are they tired, do they look sad, frustrated, happy or nervous?

What characterises digital monitoring?

Regardless of the means of extraction, digital monitoring and surveillance systems gather data about workers and their actions and non-actions. Whilst monitoring is not new, the digital nature of the current systems has particular characteristics that will have an influence on how unions should relate to them.

Firstly, the systems are hard to avoid as these systems get embedded into work processes and devices. From facial recognition, to handheld devices, wearables, to sensors across the workspace to the tracking of online activity, and to the processing of information. These have all migrated to a part of our everyday life at work.

Secondly, they are comprehensive - they collect a large amount of data from potentially multiple sources. *Thirdly*, they are instantaneous. The real time data collected gets immediately analysed. *Fourthly*, they are interactive, offering real time communication and feedback.

How is data used?

Employers can use these data to measure workers' productivity and efficiency (however that is defined). They can make elaborate calculations on the likelihood that a worker, for example, will meet their targets, be appreciated by customers, be fast-paced, or are dedicated to the job. Or they can use this to make predictions about the worker: is he or she likely to leave the company soon, fall ill, become slower, or join a union.

What exactly the employers use the data for depends on the *purpose* of the systems they deploy and the data analyses they conduct. In some cases, workers might agree to the extraction of data. For example, workers might support the extraction of data for health and safety purposes to avoid accidents or to measure working

time to avoid stress and burnout. What is important is that the workers know about and have influence over whether data extraction should take place, what the purposes of any data extraction are, how the data is used, and what happens to the data afterwards.