

Research Article

Non-Take-Up of Benefits and Rights: The Universality-Selectivity Debate as Reflected in Online Information and User Patterns

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Received 30 January 2023; Revised 10 November 2023; Accepted 18 November 2023; Published 8 December 2023

Academic Editor: Helen Skouteris

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The present study adds valuable perspective to the ongoing theoretical and practical universality-selectivity debate in the context of (non-) take-up of benefits by delving into the online information angle. People with a digital divide may be affected by such differences since they are more likely to need selective benefits. Almost all researchers agree that knowledge is a crucial barrier to benefits take-up. However, most researchers place the information barrier at the client level and do not examine factors contributing to information incomprehensibility. Is the effectiveness of universality- or selectivity-based welfare policies reflected in the online information? Our study examined this question by a computerized text analysis of 2662 online information pages in "Kol Zchut," a primary Israeli information website about benefits and rights, and its Google Analytics usage pattern data. The results indicated weak but significant differences between universal and selective information pages. Information complexity was higher in selective information pages. The findings were more complicated regarding usage patterns. In order to understand more deeply the information side of rights take-up, future research is needed.

1. Introduction

Both theory and practice debate universality versus selectivity in welfare policy, the latter referring to stipulating the conditioning of benefits on means tests. Central to the position of universality advocates is the higher non-take-up rate of selective security benefits compared to universal ones [1, 2]. Our study examines this issue from a different perspective: the information angle.

Social benefits and rights are integral to citizens' lives and essential to social care in every community. There are many reasons for the non-take-up of benefits. Most researchers agree that knowledge is one of the crucial barriers to rights accessibility and benefits take-up [3–7]. However, most researchers place the information barrier at the client level (clients are unaware of the right, do not know where to find information, do not understand it, etc.), a minority at the administrative level, and a smaller number at the policy level [4–10], according to the classic model proposed by Van Oorschot [11]. A further limitation of these studies is that they do not examine factors contributing to information incomprehensibility.

Information about social benefits and rights is uniquely complex. Information complexity refers among other things to its length, structure, and the classic readability variable [12, 13]. The Internet has improved laypersons' access to information [14–16], but accessing information does not always affect informing and enabling consumers in a welfare context [17]. Having universal access to the Internet does not solve the digital divide problem and Internet usage is still low among people living in poverty, in the periphery, the elderly, and those with disabilities [14]. Researchers found a strong connection between Internet usage and income level [18]. Since selective benefits are primarily intended for lowincome households (minimum income, income supplement, public housing, etc.), the digital divide may impact benefits utilization, especially for selective benefits, and not all populations may be able to benefit from the digital transformation [19].

Research on the effect of digitization on rights utilization is preliminary, and there is room for further development. Studies dealing with the subject mainly focused on information needs, interest topics, and little on the user experience [20-24]. As far as we know, none of them addressed the characteristics of information itself-what makes information about benefits and rights complex? Further, these studies did not distinguish between universal and selective rights at the information level. Is the effectiveness of universality- versus selectivity-based welfare policy reflected in the online information and patterns of using such information? Our motivation is to tackle these research gaps by shedding light on the information barrier. Our objectives are to examine the factors leading to information incomprehensibility and raise the issue of information barriers from the client and administration levels to the policy level (universality versus selectivity) and social context level (digital divide).

Methodologically, most studies on benefits take-up used survey and interview methodologies [25–27]. We will explore the subject by analyzing a year-long usage record of an Israeli national rights website, by computerized analysis of information complexity (word count, sentences count, etc.), content complexity (eligibility conditions and take-up process counts), and data collected by Google Analytics about usage patterns (page views, visits, etc.). Figure 1 shows the study's theoretical framework, which will be detailed in the theoretical review.

1.1. Universality versus Selectivity: A Matter of Take-Up Rates. Benefits and rights are an inseparable part of citizenship in modern society. Welfare states have developed social security safety nets that consist of various benefits such as unemployment allowance, maternity leave, and guaranteed minimal income, to name but a few. The literature classically distinguishes between universal and selective benefits in terms of dependence or independence on means testing [28–31].

Proponents of universality argue that means testing has higher administrative costs and may discourage individuals from seeking higher income through work [32]. A comparative welfare policy study [2, 33] rekindled the debate by questioning this claim: it argued that nowadays, thanks to advanced computer technologies, targeted systems are much more user-friendly and succeed in reaching their target populations. This adds to the traditional argument by universality proponents that research indicates a higher underutilization (non-take-up) rate of selective security benefits compared to universal ones [1, 2, 32].

Non-take-up of social benefits and entitlements is a widespread but complex phenomenon that is highly difficult to measure [34]. A comparative review of studies based from the 1970s to the early 2000s shows that the



FIGURE 1: The conceptual relationships among right type (universal/selective), information characteristics, and usage patterns.

extent of non-take-up ranges from twenty to sixty percent in selective minimal income benefits (in France, Germany, Netherlands, the UK, and the US) and from twenty to forty percent in universal unemployment insurance (in Canada, the US, and the UK) [35]. A more recent survey [1] found a twenty-one to sixty percent take-up range in selective minimal income benefits in Europe and sixty-seven percent in the US federal minimal income benefit.

Research identifies two leading causes of non-take-up of benefits: internal factors related to the applicant and external factors linked to the process's structure. At the structural level, complex and unclear mean tests procedures and benefits designed for disadvantaged groups often result in higher non-take-up rates [7, 26, 35, 36]. Internal factors include lack of information, socioeconomic status, stigmatization, and uncertainty about eligibility and outcomes [5, 6, 8, 26, 37]. Most researchers agree that lack of knowledge, especially regarding eligibility conditions, is one of the crucial barriers to rights accessibility and benefits takeup [4–8].

1.2. Information as a Rights Take-Up Barrier. Information about social benefits and rights is a unique type of information. The target audience of this information is vast and requires specific accessibility assistance and sometimes also mediation [25]. It is often hidden or obscure, masked to searching and understanding, written in an ambiguous language, and spread out in different places. The existing accessibility solutions are designed, sometimes due to systemic reasons, in ways that may be less adjusted to the user's needs [15, 38].

In order to claim a right, one must first know its official name [34, 39]. The increased legalization and bureaucracy of previously nonlegal areas add to the complexity of even this deceptively simple step [7, 28, 44–46]. The laws themselves and the institutional processes derived from them reflect complexity [44]. There is a greater risk of non-take-up when eligibility requirements and rules are multiple and a realization process is detailed, bureaucratic, and lengthy [7, 32].

1.3. Information Complexity. Studies indicate that information source selection is influenced among other things by seekers' assumptions regarding information complexity [43]. Information complexity refers to its length, organization, structure, hierarchy, and visual display [12]. Classic readability components-word number, sentence number, average number of words in a sentence, word length, etc.-may also affect content complexity and ease of understanding [13]. Readability is classically defined as the ease of understanding or comprehension due to writing style [46]. A more operative definition is the total sum of all elements within printed material that affect the reading success of a specific group of readers [47]. According to most readability formulas, as a text is more extended (word count and sentence count) and as there are more words in a sentence, the text is considered more complex and harder to read and understand. As text becomes more prevalent in various media (e-mail, text messages, social media, etc.), the need for strong literacy skills rises [48]. Therefore, there is a need to create a "universal design" that works for everyone to reduce complexity and prevent information gaps between populations [14, 16].

1.4. Online Access to Information about Benefits and Rights. The Internet has transformed our potential ability to access information but has done little to reduce information complexity or inequality in accessing or understanding it. Technical access alone is thus insufficient for online equality and does not automatically make the public more informed, let alone more knowledgeable [14-16]. Researchers found strong connections between Internet usage patterns and age, gender, socioeconomic status, income level, and Internet experience [49]. A study conducted in the Netherlands [50] found that sociodemographic and socioeconomic differences translate into inequalities in the offline benefits of Internet use. The Internet produces better economic results for younger, more educated, and higher-income individuals. Considering that selective benefits are typically aimed at individuals in lower socioeconomic strata, such as income assurance or supplemental income, it is plausible to infer that these demographics experience digital divide.

1.5. Israel as a Case Study. In Israel, a report by the State Comptroller [51] indicates that financial rights worth at least 300 million NIS (New Israeli Shekel) (nearly \$100 million) were not transferred as required to those entitled to receive them. Finally, a recent summary of research studies about National Insurance Institute benefits take-up in Israel show that the take-up level of universal benefits approaches 100%, while in selective benefits, take-up rates are low, sometimes even lower than fifty percent [52].

The information and processes related to rights take-up in Israel are so complex that several for-profit companies, public projects, and NGOs help citizens complete it [53]. A survey asked professionals in the rights utilization area to map the take-up barriers among various populations in Israel—Palestinian-Arabs, ultra-Orthodox Jews, older people, people in financial distress, and sick people [54]. The only significant factors among all populations were rights information complexity and information overload. A report by the Research and Information Center of the Israeli Knesset (parliament) [55] found that the digital divide in Israel was correlated with lower educational levels, lower income levels, and nationality.

The field of online access to information about benefits and rights is relatively new. Aside from a few preliminary studies about specific websites or platforms, mainly in Israel [21, 24, 56–58], the subject of information for the less privileged or the needy has not been thoroughly investigated. In a recent study, Rafaeli et al. [22] offered a novel approach to measuring the digital divide in Israel by analyzing digital trace data, approaching the subject as a case study. They focused on maternity and elderly rights and found that information mediators asked forty-four percent of the questions about the rights of senior citizens. Moreover, they found that Tel Aviv (central city) residents used the Internet five times more than residents in Israel's periphery. That study is limited in scope and leaves room for more analysis.

Another Israeli study, an evaluation research report about the Kol Zchut website [54], used a different methodology than ours. It used surveys, focus groups of welfare professionals, and Google Analytics data. Analysis of professionals' opinions about barriers to rights take-up found that Kol Zchut was confusing, overwhelming, not focused enough, and overloaded. None of these studies, however, referred to the distinction between universal and selective rights. Our study will examine the non-take-up of rights in today's online institutional environment by focusing on three main variables—right type (universal/selective), information complexity (content and readability formula components), and information accessibility and online search behaviors.

1.6. Research Questions and Hypotheses. According to the literature review, there are take-up gaps for universal and selective rights, and information complexity plays a significant role in non-take-up. Information about rights has unique characteristics due to legal processes, among other factors. Furthermore, the Internet has increased access to information in today's digital rights take-up environment, without reducing the digital divide. Consequently, this study addresses the following questions: Is the effectiveness of universality or selectivity-based welfare policies reflected in online information? Will there be differences between universal and selective rights in terms of information complexity? Will website usage patterns also differ, and how?

Based on these research questions, the following hypotheses will be examined:

 H_1 : information pages about selective benefits will have more information complexity characteristics as opposed to universal benefits.

 H_2 : there will be differences in website usage patterns between information pages about selective as opposed to universal benefits.

2. Methods

As mentioned, most studies on the barriers to benefits takeup use survey and interview methodologies. Such methods help test clients' attitudes towards benefits information but cannot incorporate a large amount of information. Moreover, the word complex has different meanings to different people, so developing uniform and valid indexes is challenging. The increased use of digital technologies permits various research possibilities based on digital records. Text analysis, network analysis, and social network conversation are just a few examples of the development field of digital records research [59]. Such methods allow us to analyze the characteristics of the information itself and determine which characteristics make it challenging to comprehend. Computerized analysis has limitations due to its inflexible and inhumane set of instructions. However, it allows us to analyze large amounts of data and create textual indexes that are impossible to create manually. Our study will use digital traces from a benefits and rights information website. The data being monitored are not personalized and do not present any privacy concerns. Despite the lack of knowledge about specific client characteristics and their Internet usage levels, the abundance of data allows for comprehensive observations, unveiling noteworthy research patterns. Additionally, websites disseminating information about benefits and rights should aim for a universally inclusive design to accommodate a diverse range of users. The methodology combines dataset extraction, automated scraping, and statistical analysis, as detailed below.

The sample includes Israeli Internet users searching for rights and benefits information. Our study uses the entire website content of "Kol Zchut," an Israeli information website about benefits and rights. "Kol Zchut" ("All Rights") (https://www.kolzchut.org.il) is the Israeli national rights information site, serving about 9 million unique users (2020) per year—equivalent to nearly the entire Israeli population. The site is in three languages: Hebrew, Arab, and Russian. It contains information about rights, benefits, laws, NGOs, government services, and more. We used the website XML file containing all website texts with design programming markings to identify titles, bullets, etc.

We also used Google Analytics of "Kol Zchut." Google Analytics is an online service for website owners that provides various data about usage website patterns. Data can be extracted based on the indicator choices and the selected time ranges. Searching for information about benefits is related to the year cycle since rights such as convalescence pay are given during a particular month. Therefore, we defined the time range of one year (2017) and extracted (downloaded) the dataset from the Google Analytics platform about all pages viewed in that year (about 28,000 web pages). We downloaded indicators about website usage patterns for each web page. Each record contained data on

- (i) Page name and link
- (ii) Page view count
- (iii) Count of unique page views: views by the same user during the same session

- (iv) Average page visit time
- (v) Page bounce rate—the number of users who access a single page and then exit
- (vi) Page entrance—the first page or screen view in a given session
- (vii) Exit percentage—the number of times visitors left a site from a specified page

In order to analyze information complexity, we have written a dedicated Python program. The program finds each page's content in the XML file of "Kol Zchut" by page name column, which appears in the Google Analytics data tables, and automatically counts elements we choose to observe in the text. We programmed the computer to retrieve the following data: word count, sentence count, average words in a sentence, a count of bullets in the eligibility conditions section and a count of conditional words ("if," "or," "also") in it, and bullet counts in the take-up process section and count of conditional words in it. The conditional words were added to the count because they indicate another eligibility condition or take-up process when they appear in these parts.

In order to identify whether a given page considers a universal or selective benefit, we defined a glossary of words and expressions indicating selectivity, such as "means test" and "earning incapacity" in different inflections adapted to the Hebrew language. If one of the words or expressions appeared in the text, the computer coded the page as "selective." We ran several iterations and tests to check our coding for correctness and specified the glossary accordingly. Manual check found that ten pages out of 217 were erroneously defined as relating to selective benefits. In an in-depth examination, we found that although they were about universal rights, one of their take-up scenarios was selective. Accordingly, we treated these pages as relating to selective benefits.

We excluded several pages from our analysis for language reasons since our code was uniquely adapted to Hebrew. For irrelevant content reasons, we also excluded test pages, pages with only diagrams, tables or images, pages without content, pages connected to other pages, and system pages. For technical reasons, we excluded pages whose titles had been changed and were no longer similar to those in the XML file (12,872).

Considering the site also contains information about organizations, laws, etc., we included only pages describing eligibility conditions and/or benefits take-up processes (5,415). Finally, since the page views ranged from 1 to 547,449 and because pages viewed only once may have been viewed only by the person who created them, we decided to refer only to pages viewed at least 30 times (minimum sample size) and came up with a total of 2,662 pages.

3. Results

Table 1 shows the descriptive statistics of all tested components, and Table 2 shows the descriptive statistics divided into universal and selective pages. Two hundred and seventeen pages were coded regarding selective benefits and 2445 as regarding universal benefits. A visual overview of the

| | | - | | | |
|--|------------------|--------|--------------------|------------------------------|-----------|
| | Min. Max. Mean S | | Standard Deviation | Mann–Whitney test P value | |
| Page views | 30 | 547449 | 4063.93 | 20903.951 | 0.022** |
| Unique page views | 9 | 492991 | 3339.93 | 17818.760 | 0.036** |
| Average visit time | 14.727 | 1475 | 151.309 | 95.706 | 0.036** |
| Page entrances | 0 | 458151 | 2308.11 | 14768.705 | 0.0666 |
| Bounce rate | 0 | 1.000 | 0.455 | 0.181 | < 0.001** |
| Exit percentage | 0 | 0.944 | 0.402 | 0.189 | < 0.001** |
| Word count | 118 | 5948 | 609.63 | 468.022 | < 0.001** |
| Sentence count | 11 | 324 | 48.47 | 30.423 | < 0.001** |
| Average words in sentence | 3.408 | 22.410 | 11.427 | 2.699 | 0.042** |
| Eligibility conditions (bullets and words) | 0 | 96 | 4.47 | 7.580 | < 0.001** |
| Take-up process (bullets and words) | 0 | 94 | 8.74 | 11.292 | 0.904 |

TABLE 1: Descriptive statistics *.

N* = 2662; *P* < 0.05.

TABLE 2: Descriptive statistics divided into universal and selective pages *.

| | Min. Universal* | Selective** | Max. Universal | Selective | Mean Universal | Selective | Standard Deviation Universal | Selective |
|--|--------------------|-------------|-------------------|-----------|-------------------|-----------|------------------------------------|-----------|
| Page views | 30 | 31 | 474131 | 547449 | 409 | 637 | 18732 | 37522 |
| Unique page views | 9 | 23 | 420690 | 492991 | 336 | 522 | 15657 | 33679 |
| Average visit time | 16.2 | 14.72 | 945.6 | 1475 | 132.76 | 122 | 93.69 | 115.59 |
| Page entrances | 0 | 0 | 365054 | 458151 | 123 | 136 | 12305 | 33679 |
| Bounce rate | 0 | 0 | 1 | 1 | 0.44 | 0.38 | 0.17 | 0.19 |
| Exit percentage | 0 | 0.17 | 0.93 | 0.94 | 0.39 | 0.33 | 0.18 | 0.16 |
| Word count | 118 | 168 | 5948 | 2472 | 457 | 640 | 461.64 | 501.62 |
| Sentence count | 11 | 11 | 324 | 309 | 39 | 57 | 28.93 | 40.76 |
| Average words in sentence | 3.4 | 7 | 22.4 | 18.79 | 11.22 | 11.27 | 2.73 | 2.18 |
| Eligibility conditions (bullets and words) | 0 | 0 | 70 | 96 | 2 | 5 | 6.53 | 14.47 |
| Take-up process (bullets and words) | 0 | 0 | 83 | 94 | 5 | 5 | 10.95 | 14.47 |

*Universal: N = 2445; **Selective: N = 217.

data indicated nonnormal variable distributions. A Kolmogorov–Smirnov test of normality confirmed this numerically and found that none of the variable parameters was distributed normally. Consequently, since the selective page number was significantly lower than the universal page number and since it is a categorical-quantitative comparison, we used the Mann–Whitney nonparametric test to examine differences between universal and selective benefit information pages.

3.1. Website Usage Patterns. A Mann–Whitney test indicated that *page views* were higher for selective information pages (Mdn = Median) (Mdn = 637) than for universal information pages (Mdn = 409). It also indicated that *unique page views* were higher for selective information pages (Mdn = 522) than for universal information pages (Mdn = 336).

Conversely, a Mann–Whitney test indicated that *average* visit time was higher for universal information pages (Mdn = 132.768) than for selective information pages (Mdn = 122). The same was true of bounce rate: higher for universal information pages (Mdn = 0.4461) than for selective information pages (Mdn = 0.3892). Exit percentage was also higher for universal information pages

(Mdn = 0.3941) than for selective information pages (Mdn = 0.3394).

Finally, a Mann–Whitney test indicated that there was no significant difference between universal information pages (Mdn = 123) and selective information pages (Mdn = 136) regarding *page entrances*.

In sum, significantly higher page views and unique page views were found for selective compared to universal information pages. On the other hand, significantly higher average visit time, bounce rate, and exit percentage were found for universal compared to selective information pages. No significant difference was found between universal and selective information pages regarding page entrances.

3.2. Information Complexity. A Mann–Whitney test indicated that word count was higher for selective information (Mdn = 640) than for universal information pages (Mdn = 457). Sentence count was also higher for selective information (Mdn = 57) than for universal information pages (Mdn = 39). Finally, the same was true of *average* words in sentence—higher for selective information (Mdn = 11.275) than for universal information pages (Mdn = 11.22). 3.3. Content Complexity. A Mann–Whitney test indicated that the complexity of *eligibility conditions* (*bullets and words*) was higher for selective information pages (Mdn = 5) than for universal information pages (Mdn = 2). Concerning the *take-up process*, however, no significant difference was found between universal information (Mdn = 5) and selective information pages (Mdn = 5).

All our research hypotheses were confirmed: there are differences between universal and selective information pages regarding information and content complexity and website usage patterns. Note that although the effect sizes of the results were weak, the significance levels were consistently high, suggesting directions for further research on the subject. The study's findings are summarized in Table 3.

4. Discussion

This study is part of comprehensive research about the unique characteristics of information about benefits and rights. In this study, we shed light on the universalityselectivity debate focusing on information complexity. This new perspective on the subject raises research questions beyond those examined here but also offers practical ways of making information more accessible.

Based on our literature review, most studies on benefits take-up refer to the information barrier as a barrier at both the client and administration levels [9, 10]. In our research, the information barrier is raised to the level of policy, and in some ways, to the level of social context added by Janssens and Van Mechelen [10]. According to our research, whether a right should be universal or selective is also influenced by and reflects the level of information. Additionally, in an era of digital information transition, digital gaps have social implications that influence benefits take-up.

Information barriers are often discussed by researchers in general—it is hard to gain knowledge of, find, and understand information [4–8]. Our research is innovative in that it aims to identify the components that contribute to information complexity. Moreover, it attempts to understand how those components affectclients' behavior. Digital information allows us to analyze information and its use in previously impossible ways.

Before dividing it into universal and selective benefits and rights, descriptive statistics alone can shed light on information about benefits and rights' unique characteristics. The fact that word count can reach a maximum of 5948 (about an article length for comparison) and the fact that eligibility conditions (bullets and words) and take-up process (bullets and words) can reach maximum values of 96 and 94, respectively, may indicate information about benefits and rights complexity as Choi and Lee [12] refer it.

The complexity of selective benefits take-up [5, 7, 33] is reflected already in the information level. Information about selective benefits is more complex than information about universal ones. The findings raise the question of what aspects play a more significant role in making information about selective benefits more complex—textual properties (text or sentence length, etc.) or content complexity (number of eligibility conditions). Results regarding eligibility conditions also strengthen Currie's claim [4] that when wording laws, policymakers should pay more attention to formulating eligibility conditions.

Although studies (Fidel & Green, 2004); [44, 45] have shown that people choose information sources also according to their complexity, our results show that in the case of information about benefits and rights, page views are higher for selective benefits, which are more complex. We suggest that Kol Zchut's exclusivity as the primary Israeli website for information about benefits and rights leaves users without much choice. The vital need for information to claim and take up a benefit might overpower complexity; however, more research is needed to deepen this insight.

Selective benefits mainly concern low-income populations since whoever needs to take them up must prove economic needs (minimal income and public housing benefits, for example). As studies have indicated that income level is linked to the digital divide [14, 22, 50, 55], we can presume that those seeking information about selective benefits may also suffer from a digital divide at the level of information, beyond the information complexity barrier. A deeper understanding of this issue requires further research.

In addition to information and content complexity, we also examined web usage patterns. Data available in Google Analytics has limitations and can be interpreted differently. For example, we do not know whether a long time spent on a page indicates a user was absorbed in his reading or if he forgot the page was open and did other things. Because these data represent tens of thousands of viewings on many pages, the results concerning the site's usage patterns are undoubtedly significant and cannot be ignored. Experimental methodologies or eye-and-mouse tracking can shed further light on the phenomenon.

Although selective information pages have the upper hand regarding information and content complexity, the picture is more complicated regarding usage patterns. The number of page views and unique views is higher for selective information pages, while average visit time, bounce rate, and exit percentage are higher for universal information pages. Perhaps universal information pages are viewed less because this information is better known, and people find it in other information sources, such as friends, family, and public campaigns.

In public benefits and rights information websites we want the user to quickly find the information they need, understand it, and leave the website. In light of this, the findings regarding usage patterns draw two different use scripts. Possibly, when users search for information about universal benefits, which is less complex according to our findings, they spend just the time they need to read it all (a longer average visit time), understand, and exit from the same page (higher bounce rate and higher exit percentage). In selective information pages, the picture is different. We suggest that users enter them more frequently because the information about these benefits is less known and published. Moreover, they do not hurry to leave those pages and follow other links within them (lower bounce rate and lower



TABLE 3: Summary of findings.

exit percentage) because they try to understand the complex information these pages provide. Further research is needed to draw these approximate use scripts.

4.1. Limitations and Further Research Directions. We performed our research on one site. Comparative research would have been interesting if other similar sites were in Israel. Several benefits and rights information sites are available worldwide, making cross-cultural measurements possible. Language differences may complicate future comparative studies since each has different linguistic, syntactic, and formal characteristics (writing direction, for example), requiring adaptations to the programming process. It is also a programming challenge in some languages, including Hebrew, to apply NLP (Neuro-Linguistic Programming) techniques. Although language differences are challenging, it will be possible with the development of artificial intelligence and rapid translation capabilities between languages and could shed further light on the phenomenon.

This study has operationalized complexity in terms of classic readability components [13]: word count, sentence count, and average words in a sentence. Nevertheless, future studies may examine additional and more complicated readability measures, such as organization, structure, hierarchy, and visual display [12]. Incorporating these measures with readability analysis may contribute to developing accessible web pages with information on benefits and rights.

Page views do not indicate page importance (rank) in benefits and rights information but users' information needs. Challenges include developing theoretical and practical ways of weighing users' information needs and adapting how information is accessed according to this scale. Further measures such as click depth, visits per visitor, mouse scroll, or heat maps may enable a fuller understanding of usage patterns regarding information about benefits and rights.

Our usage pattern findings raise questions about the connections between usage patterns and information complexity measures. More research is needed to determine what plays a more significant role in usage patterns—content complexity, readability components, or other variables. In order to test these questions, we suggest using the A/B testing method.

5. Conclusions and Implications

Our research sheds new light on the ongoing debate about selective and universal welfare policies. We showed that the differences between two benefits types were also reflected in information complexity and usage patterns. This study is innovative in theoretical and methodological ways and has implications for policies and practices. As benefits and rights are integral to citizens' lives and essential to social care in every community, in this article, we contribute to existing knowledge on the universality-selectivity debate in the context of benefits take-up and information complexity by exploring the characteristics that make information about benefits and rights a barrier to benefits take-up. Theoretically, this raises the information barrier from the client and administration levels to the policy level—benefit type-—concerning information complexity.

Methodologically, studies about the importance of information for benefits and rights realization mostly use selfreporting methods. Extracting and exploring digital trace data from website usage and public expressions through computerized content analysis are innovative. This opens the door to further research that uses such a methodology to analyze different texts and subjects related to policy research.

On a policy front, our study advocates for universal policies by underscoring the necessity for a comprehensive information policy that ensures the accessibility of benefits and rights information while defining acceptable levels of information complexity. This becomes particularly critical for individuals seeking information about selective benefits who may be affected by the digital divide. Despite the increasing accessibility of online information, we emphasize the importance of retaining options for in-person or online assistance from public services.

Following the completion of this study, the Israeli Ministry of Justice has decided to mandate Kol Zchut as an

integral component of the operation tender to enhance text readability. Utilizing the readability metrics derived from our research, including word count, sentence count, average words per sentence, and other linguistic metrics, Kol Zchut has successfully developed a tool to prioritize pages for simplification. Additionally, they have hired the services of a linguistic editor to execute the necessary revisions. These research findings may direct efforts specifically to selective rights pages. The customized tool we developed may be able to help them do so.

Data Availability

The data that support the findings of this study are available from Kol Zchut website operators. Restrictions apply to the availability of these data, which were used under license for this study. Data are available from the authors with the permission of Kol Zchut website operators.

Disclosure

Sheizaf Rafaeli former address: Information and Knowledge Management Department, University of Haifa, Haifa, Israel.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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