

# The Zlto Exchange system

Promoting social development through a community currency implemented on smartphones

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## ABSTRACT

The article presents a study of a youth café initiative for skills training in South Africa where a reward system, the Zlto Exchange (ZE) system with a *community currency*, Zlto, was implemented on smart phones, to promote personal development and prepare socially challenged youth for the job market. The ZE system enables youth to earn Zlto in exchange for taking part in skills training or doing community work, that can be spent on services and consumables in the local community. This study assesses the qualitative performance of the ZE system and youth café operation, through an inductive qualitative analysis of interviews with café visitors and staff. Using Self-Determination Theory (SDT) as a lens, the analysis focuses on how the youth café operation supports motivation for personal development. Results indicate that the youth cafés provide a potentially fruitful platform for promoting personal development in youths, based on how the ZE system is embedded in the supportive environment of the youth cafés, and how the youth café operation is integrated in the local communities.

## CCS CONCEPTS

• **Human-centered computing** → Collaborative and social computing; Collaborative and social computing; Empirical studies in collaborative and social computing;

## KEYWORDS

Smartphones, community currency, personal development, motivation, self-determination theory, social transformation

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## 1 INTRODUCTION

In sub-Saharan Africa, mobile ICT use has soared over the last decade, and mobile phones have become the most predominant ICT in developing countries [7]. Mobile phones have potential in

promoting development in many areas, for example: low-cost access to financial information, services and transactions [4]; social connectivity and communication [6]; e-participation and social sustainability in e-governance [9]; education through mobile learning [7]; and women empowerment, including improving job opportunities [12]. This study evaluates a local initiative from RLabs, a social enterprise in Cape Town, South Africa, implementing a *community currency*, Zlto (pronounced 'zlato'), in smart phones to promote development and prepare youth for the job market, in a socially challenged community.

'Community currency' is a term referring to the monetary innovation *Complementary Currencies Schemes (CCS)* that has existed since the 19<sup>th</sup> century, meaning 'monetary systems developed and implemented by groups from the civil society in order to fulfil community, economic, or territorial projects' [3, p2]. Studies of CCS, including community currencies, has spread from economic and human geography to development and environmental studies, community development and social movement studies [5]. In recent years, there has been many examples of widely adopted community currencies in sub-Saharan Africa, with Bangla-Pesa [3] and M-pesa [6] as prominent examples. In Cape Town alone, where this study takes place, CES Exchanges lists a total of seven community currencies in 2022 [1]. One reason to develop community currencies is to boost local economies 'helping people excluded from employment to participate in productive activity by using their skills and improving their self-esteem' [5, p850]. The Zlto Exchange (ZE) system enables youth to earn Zlto by attending life skills training sessions in youth cafés and doing community work. In the first year after the launch of the ZE system in 2016, the youth cafés enrolled 1300 youth, who earned 800.000 Zlto through 13.000 training classes and 30.000 community hours [11]. This study contributes to an understanding of how digital community currencies can promote social development, through an analysis of the use of the ZE system as an integrated element of the RLabs Youth Cafés.

## 2 RLABS YOUTH CAFÉS

RLabs is a South African social enterprise established 2008 in the Cape Flats suburb Bridgetown in the area of Athlone [10], [13]. Since launch, RLabs has expanded to 23 countries in 5 continents, with impact on more than 8.5 million people. RLabs acts as a counterforce against drugs and gangsterism with the mission to '*reconstruct communities through innovation, technology and education*' [13]. In 2010, RLabs launched the RLabs Connect programme to address youth unemployment in Cape Town by training youth in digital skills needed by local companies. However, despite getting employment many did not last in their job positions due to social challenges at home and in their community. Therefore, RLabs started a collaboration with the Western Cape Department of Social

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Development, redesigning the RLabs connect programme to focus more on personal development, and to launch RLabs Youth Cafés (YCs) as a platform for bridging the gap between education and employment.

Youth unemployment, which is the phenomenon targeted by the YCs, has been a substantial challenge in South Africa over time. In 2016, when the interviews for this study were conducted, youth unemployment (ages 15-24) was 43,94% in South Africa [14] as compared to 11,6% in Africa as a whole [15]. The figure rose to 51,52% for South Africa in 2022 [14], compared to 12,7% for Africa [15]. Social challenges and widespread unemployment create isolation for youth that makes them lose hope, as they are unaware of any alternative life paths [11]. This study focuses on two YCs in Athlone and Mitchell's Plain [13], areas dominated by drug abuse, gangsterism and unemployment [8] and both cafés are situated in shopping malls to increase accessibility and attraction for local youth. Interiors are vibrant with bright colours, walls are decorated with commissioned graffiti and the seating area is surrounded by rooms where training is facilitated. The café staff serve espresso-based coffee from state-of-the-art machines and snacks and Internet-connected computers are available.

The ZE system consists of three applications: (1) the Zlto Marketplace application converts money from donors to Zlto; (2) the Zlto Merchant application is used by RLabs to buy products and services from vendors; and (3) the Zlto Mobile Wallet application is used by youths to earn and spend Zlto. As first-time café visitors are on-boarded they receive 50 Zlto in their Zlto Mobile Wallet. Further Zltos are then earned in exchange for participating in training, including *sessions* (short single-subject training events), *workshops* (series of training events on a topic over a few weeks), and *courses* (series of training events on a topic over a couple of months). In addition, youth can earn Zlto outside the café by finding work in the local community (for example assisting at an orphanage or school; helping elderly with buying groceries; or cleaning up the local beach). The services rendered are verified through smartphone photos and contact details of a person able to confirm service completion. The information is sent to RLabs through the Zlto Mobile Wallet, and RLabs staff decide the Zlto amount paid in multiples of ten (10, 20, 30 etc), which is transferred to the user's Zlto Mobile Wallet.

The Zlto can be spent in the café or at several local vendors in the community, who have signed up with the ZE. Products and services are bought in bulk from vendors, e.g., 100 haircuts from a hairdresser, allowing for discounted prices, and the purchases are stored in the ZE. At the vendor, youths pay with their Zlto Mobile Wallet application by connecting their mobile phone to a terminal with the Zlto Merchant application. To make the system attractive to vendors, it can also be used for data collection, e.g., customers filling out a survey when making a purchase. In summary, the ZE is a central component in the RLabs Youth Café operation, designed to motivate youths for personal development.

### 3 RESEARCH METHODOLOGY

Nine semi-structured interviews were conducted with café visitors and co-leaders at YCs in Bridgetown and Mitchells Plain. The co-leaders had insights into the details of the operation and the

progression of individual youths. Developers of the ZE-system were not interviewed, as the co-leaders of the cafés collaborated with the developers and had sufficient knowledge of the design. Each café has two co-leaders and both were interviewed in Bridgetown, while one co-leader was interviewed in Mitchells Plain. Of the six remaining interviews with café visitors, one was conducted in Bridgetown – a group interview with ten visitors – and the remaining five interviews were done at the Mitchells Plain café. It was not possible to choose informants following demographic or other parameters. Rather, the interviewees were selected through convenience sampling, with the assistance of the café co-leaders. Staff interviews varied in length between 27 and 60 minutes, and visitor interviews between 11 and 35 minutes. All interviews were audio recorded and eight fully transcribed (one was omitted from transcription due to excessive background noise). An inductive analysis of the interviews was done with iterative open coding in several steps until saturation was reached and no more code instances could be found. Some re-coding of data occurred during the iterations. Informants are referred to as P1–P10. It should be noted that P9 was a group interview with 10 youths, and inside the quotes they are referred to as Y1, Y2 etc.

### 4 INTERVIEW RESULTS

Most of the informants grew up either in a broken family, with one parent absent or dead, or with other relatives (in case both parents were absent or dead) and many of them are high school dropouts. Some informants have been gang members themselves, and some have served prison sentences. In general, YC visitors have typically had very little exposure to computers or digital technology; not all of them have smartphones, and some have no mobile phones at all. Many visitors heard about the Youth Cafés from friends, relatives or in their local church. The YC staff describe the cafés as an open inclusive environment without demands, and visitors describe them as productive, uplifting and inspiring places – a 'safe haven' (P6) and a 'second home' (P2). Many visitors cannot afford public transport and must walk through high-crime areas controlled by gangs to reach the cafés, with the risk of being robbed or assaulted. P1, a former gang member, explains how he was regularly beat up on his way to the café by rivaling gangs. Despite these risks visitors choose to walk to the cafés, indicating a strong motivation to come.

YC staff have a fundamental role in motivation and groom the youth towards making independent choices that benefit their long-term personal development. The general attitude is to evoke their motivation rather than explicitly recommending them what to do. However, if participants are absent for long, the staff will contact them and encourage them to come back. Similarly, if the staff see progress, they will present alternatives and suggest activities for further personal development or exit options like internships through the RLabs Connect operation. A second motivational element is the ZE system providing a marketplace controlled by RLabs through two main parameters: (1) pricing, and (2) the selection of products and services offered. The *pricing strategy* for earning Zlto, is carefully tuned to nudge café visitors towards activities related to personal development. The YC visitors earn 15 Zlto per session attended (1-2 hours), 50-60 Zltos per day in workshops (normally 4-5 hours) and 20 Zltos for recruiting a new member to the café.

Community work pays with 30 Zltos per hour, up to a maximum of 100 Zltos per deed. In day sessions they earn 3 Zltos per hour, but a one-week workshop pays with 6,25–7,50 Zlto per hour. Consequently, the day sessions function as an entry point, to attract youth to engage in activities with small commitment, but the pricing encourages youth to take one-week workshops rather than single sessions. Similarly, community work pays substantially better than workshops, with 30 Zltos per hour, strongly encouraging youth to do community work.

*Products and services* offered inside the YCs, are food, drinks, and internet time at the computers. Also, selected activities in the YC requires Zlto payment to attend. Outside the YC, youth can buy basic products from selected local stores but excluding cigarettes and alcohol. Services include for example going to a hairdresser, seeing a doctor or dentist, and online purchase of tickets for public transport and airtime. In addition, a smartphone can be bought through an associated company for 1500 Zltos; a vital motivation mechanism, as earning and spending Zltos outside the YCs requires a smartphone. Importantly, it seems clear from the interviews that there is a design principle behind the ZE system that ensures benefit to both individual and community, regardless of how it is used.

## 5 ANALYSIS: SIGNS OF MOTIVATIONAL AND PERSONAL DEVELOPMENT

Self-determination theory (SDT) foregrounds proximal sociocultural conditions and processes as main influences behind not only what people do but also how they feel while acting, and as a consequence of acting [2]. The purpose of this analysis is therefore to seek grounding for interpretations of motivational behaviour and feelings expressed, not only in the motivational mechanisms at play but also in the social setting, the values promoted by RLabs Café staff and the visions, attitudes and perspectives expressed by staff and visitors. Further, it becomes relevant to see if these interpretations can be linked to various degrees of *internalisation* of motivation, as described in SDT. However, the interviews represent a snapshot of motivational states as expressed by a small sample of café visitors, and anecdotal observations of visitors' progress reported by café staff.

At first, it may seem obvious that earning Zlto is a case of *externally regulated motivation* where behaviour leads to a tangible reward, for example earning Zlto to buy a smartphone. Another example is the requirement of attendance at activities, where avoiding the punishment of being excluded from further attending the workshop is external regulation. However, in some cases, what may first appear as external regulation, may appear less so in context; for example, earning Zlto to travel on public transport to the YC for a training session. Another example is when RLabs charge for selected activities. Ascribing a high value to an event, by charging Zlto for attending, could seem like the inverse of external regulation, but if Youth Café visitors have already developed autonomous motivation for personal development, the event itself becomes the reward. Thus, in some cases, seemingly external regulation, may have an underlying more internalised motivation.

The next level, and first type of internalisation of motivation, is *introjection* [2]. Being the least effective type of internalisation, it represents partial internalisation, where people take in control

without sense of ownership. It is difficult to identify introjection in the interviews, but one possible example is that most interviewees readily describe the range of options for earning Zlto outside the café, but few have done community work. It may be that doing community work as part of personal development is perceived more as a demand from the Youth Café staff, with implicit shame if not responded to, than driven by autonomous motivation. However, it should be noted that there are also visitors strongly motivated to do community work as described below.

*Identification* is the second type of internalisation, where people identify with an activity's value, and accept responsibility for regulating the behaviour [2]. One example is P3 who states: *'Yes and sometimes you have to pay for your courses as well, so you don't only receive, because that's why they tell you to budget, because sometimes there's main courses coming.'* Thus, he identifies with the value of budgeting his use of Zltos and saving for use on courses rather than spending on consumables.

The third and fullest type of internalisation is labelled *integration*, where people have succeeded in integrating an identification with other aspects of their true self. Integration is the means through which extrinsically motivated behaviours become truly autonomous. As an example, visitor P4 seems to echo the words of the YC leaders: *'We are equal, we don't look at your past and your background. We look at now, your present. Are you on now, are you willing to change?'* (P4). The statement itself demonstrates integration of values, but this is further strengthened by her use of 'we', indicating both immersion and an inclusive attitude toward other visitors. Another example is P2 who clearly expresses an integration of values, and how he perceives himself as a changed individual: *'I want to change my life. Because I want to be a role model at this age. I'm seventeen now, I want to be a role model for younger kids. There where I live, I want them to look up at me and see, okay, this boy come out of that circumstances but look how is he now.'* (P2)

Finally, intrinsic motivation is the most autonomous motivation and highest degree of self-determination [2]. Intrinsic motivation, like integration, is being accompanied by a sense of volition and choice but there is a difference. The former is based on interest in the behaviour itself, while the latter is based on the person integrating the *value* of the behaviour. A step towards autonomy in personal development would be if youth consistently choose to spend their Zltos on training activities, thus prioritising personal development over consumption. In the case of doing work in the community, a sign of further personal development would be if the individual adopts the behaviour of doing community work for its own sake rather than for earning Zlto. In the interviews, there are examples of both behaviours. P2 is asked whether it is better to spend Zlto on courses, and answers: *'It's better, because at the end of the day . . . the only thing that's going to be helping you, is by paying 100 zlatos, to sit in a class.'* Similarly, visitor P1, while asked whether he spends Zltos outside the café, answers: *'I only used it once. But for me it's going to be useless to always use Zlatos on, on the outside, where you can use it, on the inside of the café, which, which is gonna benefit you even more.'* Regarding doing community work for its own sake, two visitors in the group interview who have been coming to the café for 5 months stated: *'Y1: I basically always do community work. . . Y2: . . . but I don't record it. Y1: [inaudible]. . . I do it because I want to help. For me, it's not about earning, it's more about giving. Go in school*

and teach some life skills.' (P9). Similarly, visitor P1, after attending the café for 3 months, arranged a street soccer tournament in his neighborhood. He then used the Zltos earned to buy toiletries and cleaning accessories and later gave them to the participants.

## 6 CONCLUSION

In conclusion, this study seeks to contribute to understanding how digital community currencies can contribute to social development in a developing world context. The demonstrated positive impact of the YC operation, ZE system and Zlto community currency, resonates with two conditions established in earlier research: (1) similar to e.g. M-pesa, the ZE system relies on mobile phones as the most predominant ICT in developing countries [7]; and (2) there is potential in community currencies to engage unemployed in productive activity to promote social development [5]. Further, the presence of different degrees of self-determination along a progressive scale, indicates progression from controlled motivation towards autonomous motivation, rather than youth stagnating at extrinsic motivation. Consequently, the study indicates that the YC operation, ZE system and Zlto digital community currency can develop autonomous motivation for change and personal development in youth from socially challenged environments.

## 7 ETHICAL CONCERNS

The research involves staff and visitors in two RLabs Youth Cafés in Cape Town, South Africa, through recorded interviews. The informants were asked for explicit informed consent; in case informants opted out (no case in question), their data would be deleted. No informants were (dis)advantaged in any way by being part of the research. The study has received ethical approval by the Pro-rector at the IT University of Copenhagen (approval number 040521).

## 8 DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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