

**PROPOSED PHD TRACKS**  
**UWC-GHENT-VUB JOINT PHD PROGRAMME**  
**OCTOBER 2021**

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**VUB: Phd-track 1 : The role of Social Support to promote Digital Inclusion**

**VUB Supervisors:** Leo Van Audenhove, Wendy van den Broeck ; Ilse, Marien

Covid-19 and the resulting lock downs and restrictions have put the issue of digital inequality back in the picture. It has become painfully clear that not all have access to the same technology and/or possess the necessary skills to operate technology even if people do have access to technology. Being able to operate technology, to use applications, to keep up with change and to solve problems requires different learning and coping mechanisms.

We know that formal education only plays a minor role. Individuals draw on many resources to keep abreast of change and to be able to function within a digitize society. In this study we will look at the role of social support for digital inclusion in the highly socially stratified context of South African. We define social support as the aid—emotional, instrumental, and informational—that an individual receives from his/her network in his/her use of digital technologies.

We define emotional aid as the support given through appraisal or social companionship during a time of heightened distress caused, for instance, by an individual's fear of technology, while informational aid is a task-oriented form of support (e.g., teaching an individual to use a computer). Informational aid refers to the guidance, advice or feedback an individual receives during the learning process. Social support for digital inclusion points to the diverse nature of support networks and highlights the variety of support seeking patterns people use and/or combine, from individuals without access to support networks, to individuals who gain support by emulating others.

This is a strongly under researched topic in both North and South. Yet, understanding the nature of social support, and how people draw on social support and resources, can learn us to better adapt intervention strategies taking these mechanisms into account.

## **VUB: Phd-track 2: A systemic ecosystems approach to enable digital inclusion**

**VUB Supervisors:** Leo Van Audenhove, Wendy van den Broeck ; Ilse Marien

Digital inclusion is more and more recognized as a central challenge in a digitized society. All citizens need access to digital communication technology, they need the skills and competences to use and work with digital applications and they need the knowledge to use technologies for social change. Since the 1990s governments have struggled to develop policy and implementation approaches in relation to the digital transformation.

The challenge is daunting and comprises several policy fields ranging from media, ICT, telecommunication, education, social welfare, etc. On top of that, actions and solutions need to be organised at the local level close to citizens. Local institutions, intermediaries, schools, etc. are better equipped to understand the real needs of citizens lacking access, motivation, skills and competences. Unfortunately governments have often conceptualised policy in silos.

On top of that little attention has been paid to the possible role of private actors in closing digital inequality. Due to Covid 19 private players have become urgently aware that a lack of digital competences has negative effects on its employees and its customers and that it has a vested interest in ensuring that large parts of its workforce and customer base is digitally included. In this project we look at digital inclusion from a systemic ecosystems approach.

At the local (community) level we look at all players involved in digital transformation and what their (potential) role is in digital transformation and inclusion. On the basis of this recommendations are formulated for policy supporting the development of collaboration in the ecosystem.

## **Ghent: Phd-track 1: Developing and testing the psychometric properties of a cross-national digital inequality scale**

### **Context**

- Ghent Phd Student: Sarah Anrijs (joint PhD Ugent – UWC, started in Oktober 2018 – will end in Sept 2022)
- Ghent Supervisors: Koen Ponnet (Ugent), Lieven De Marez (Ugent), & TBD (UWC)

### **Research aim**

Although several scales exist in the domain of digital inequality research, these scales often measure ICT access in a binary way, for instance having or not having ICT access (Lupač, 2018; Ragnedda et al., 2019). The COVID19 crisis has however made clear that it's not only a matter of having or not having a laptop or internet, but also a matter of e.g., having good internet speed and having enough internet skills. Given the lack of an easy-to-administer digital inequality scale (DIS) that measures who is digitally disadvantaged, we want to develop and test the psychometric properties of such a scale. We already started in Belgium, and the aim of this track is to adapt this scale to the context of South-Africa, and make cross-national comparisons. In South Africa, for example, the lack of digital inclusion measurement has retarded the country's ability to invest effectively and smartly to mitigate underlying digital exclusion. As a result large parts of the country remain outside of the digital society. Once developed, the scale can be integrated and validated in a digitization monitoring instrument such as Digimeter in Belgium ([imec.digimeter 2020 | imec Vlaanderen](https://imec.digimeter2020.be)). In this Digimeter, digitization is monitored on more than only access metrics, but also skills/competences and attitudes. Based on the interplay between them, digital readiness profiles can be made, and digital inequalities identified.

### **Team & expertise**

Ponnet is an international expert in structural equation modeling. He co-operated in many national and international data collection projects, and has extensive expertise in developing questionnaires and research designs, which resulted in the construction and publication of several new scales, like the Expressive and Instrumental Online Neighborhood Network Uses Scale (De Meulenaere et al., in press), the Social Media Political Participation Scale (Waeterloos et al., 2020), the Methamphetamine Decisional Balance Scale (Khazae-Pool et al., 2018), the Parental Mediation Strategies with Regard to Internet Use scale (Symons et al., 2017), ... Together with Anrijs & De Marez, he developed the Digital Difficulties Scale (Anrijs, Ponnet, & De Marez, 2020), which is a precursor of the Digital Inequality Scale. Lieven De Marez is the founding father and project lead of the Digimeter monitor in Belgium. For already 12 years it is the reference in Flanders for companies as well as policy makers to feel the pulse of digitization, based on a monitoring of access, skills/competences and attitudes. If the opportunity could be found to set up a 'Digimeter' in South Africa, Lieven and his Digimeterteam will provide all support on the operational as well as methodological side. Main contact on this side, will be Karel Vandendriessche.

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## **Phd-track 2: The impact of financial stress and digital inequality on mental health**

### **Context**

- Gent Phd Student: TBD (joint PhD Ugent – UWC)
- Gent Supervisors: Koen Ponnet (Ugent), Lieven De Marez/Mariëk Van den Abeele (UGent), & TBD (UWC)

### **Research aim**

A large body of research on the negative influence of financial hardship on families and children has been based on the family stress model (FSM; Conger & Conger, 2002; Ponnet, 2014, 2016). According to this model, income indirectly affects parent's psychological distress (e.g., depressive feelings, efficacy) and creates interparental conflicts (or relationship problems) due to feelings of financial stress (Conger & Donnellan, 2007; Barnett, 2008). Participating in today's digitizing society however is increasingly dependent on being connected and being able to participate in that connected society. In a world characterized by technological acceleration (cf. Rosa, 2003), that dependency entails an extra financial pressure, as staying up to date and connected in our ever-evolving technological landscape requires financial investments in both infrastructure (devices, apps) and services (tariff plans, paid accounts, ...). The financial pressures stemming from expenses made in relation to the digitizing society can become a new determinant of inequality, impacting stress and wellbeing.

The most prominent evolution in that context is the rise of the smartphone over the past years, and the significantly increased dependency on mobile devices, platforms and apps. This dependency is especially visible in the global South, where for many individuals mobile connectivity is both the first and only form of digital connectivity that is relied on not only for entertainment and social purposes, but more and more also for educational, transactional and or health management purposes (Togar, Vanden Abeele & Agur, 2019). This dependency becomes especially visible in South Africa, a country characterized as a "two nation" state because economic inequality creates a rift between the 'haves' and the 'haves-not'. Against this societal backdrop, digital inequality, the financial burden attached to it, and mental health problems that may result from it, are likely to manifest themselves in unique ways. This makes South Africa into a valuable research ground, especially in comparison to a Western-European nation state such as Belgium, where financial hardship and digital inequality seem less visible (albeit perhaps more stigmatized?).

The central research question guiding this project is to what extent the mobile shift comes with a cost, financial and probably also mental. The most recent evolution in this context is the COVID-19 crisis, which made clear that several (groups of) people are still disconnected from the internet, or have limited access to the internet (services). Examples of digital inequality are lack of a laptop for children to follow online courses or the lack of a smartphone to get information, get in contact with a health professional or perform a transaction, lack of good (mobile) internet connection for work or education. Digital inequality can be seen as either a subdimension of material deprivation or a new dimension of the broader concept 'financial hardship'. In either case, it is a dimension that might lead to psychological distress. Still, to date, FSM studies have not included digital inequality and/or mobile inequality. Therefore, the aim of this project is to examine how lack of digital skills and digital inequality have effects on the mental health and wellbeing of people, and whether these effects manifest themselves similarly across countries, like Belgium and South Africa.

### **Team & Expertise**

This Phd trajectory will be embedded on the intersection of two different research lines within the Ugent-mict research group: those from prof. Koen Ponnet, prof. Lieven De Marez and prof. Mariëk

Vanden Abeele. Lieven De Marez will approach this from his monitoring (cf supra Digimeter) expertise, and more specifically his interest in determinants and impact of digital inequalities. Main promotor of this Phd will be Koen Ponnet. In 2014, Ponnet demonstrated that financial stress of parents at the lower end of the income distribution impacts adolescents both directly and indirectly because this financial stress relates to daily problems such as difficulties affording basic goods, which are clearly visible to adolescents. In contrast, the financial stress of middle- and high-income parents may only have indirect effects on the life of adolescents. The paper was built on more than 700 analyses and was quoted by the founder of the family stress model (FSM) as a paper of special interest (Masarik & Conger, 2017), because it's the first FSM paper that applied an actor-partner interdependence approach, and refined the income approach of the FSM framework. Based on this paper, Ponnet was invited to write a chapter 'Financial stress' in the prestigious 'Encyclopedia of Adolescence', and to work at the European Centre for Advanced Research in Economics and Statistics (Université Libre de Bruxelles) as advisor for the "measuring equivalent income" (MEQIN) project. The theoretical framework of this paper is also of interest in research on digital inequality.

Prof. Mariek Van den Abeele is a mobile media researcher. The focus of her expertise and team are on the link between smartphone and digital wellbeing. She recently acquired an ERC project on "Digital Wellbeing in a Culture of Ubiquitous Connectivity: Towards a Dynamic Pathway Model", and is currently hiring 4 extra researchers on this topic. Just as Koen, also Mariek has previous experience in cross-cultural research setups. She also conducts research in the African context, more specifically in Liberia, in collaboration with Euriah Togar (University of Monrovia). Mariek has also worked at Tilburg University from 2012-2021, where she was a close colleague of dr. Fien Velghe and prof. dr. Jan Blommaert, who conducted a multi-year research project in South Africa on mobile media use. In that capacity, she has been familiarised with mobile media research in the South African context.

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