



# Adolescents' Intentional and Unintentional Exposure to Cyberhate: The Role of Digital Skills and Perceived Discrimination

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# Cyberhate

- **Hate speech** and **bias-based content** and **aggression** expressed via ICTs
- Motivated by **intergroup bias** and targeting people due **to group characteristics** or **group membership**

(Council of Europe, 2022; Kansok-Dusche et al., 2023 Mondal et al., 2017)



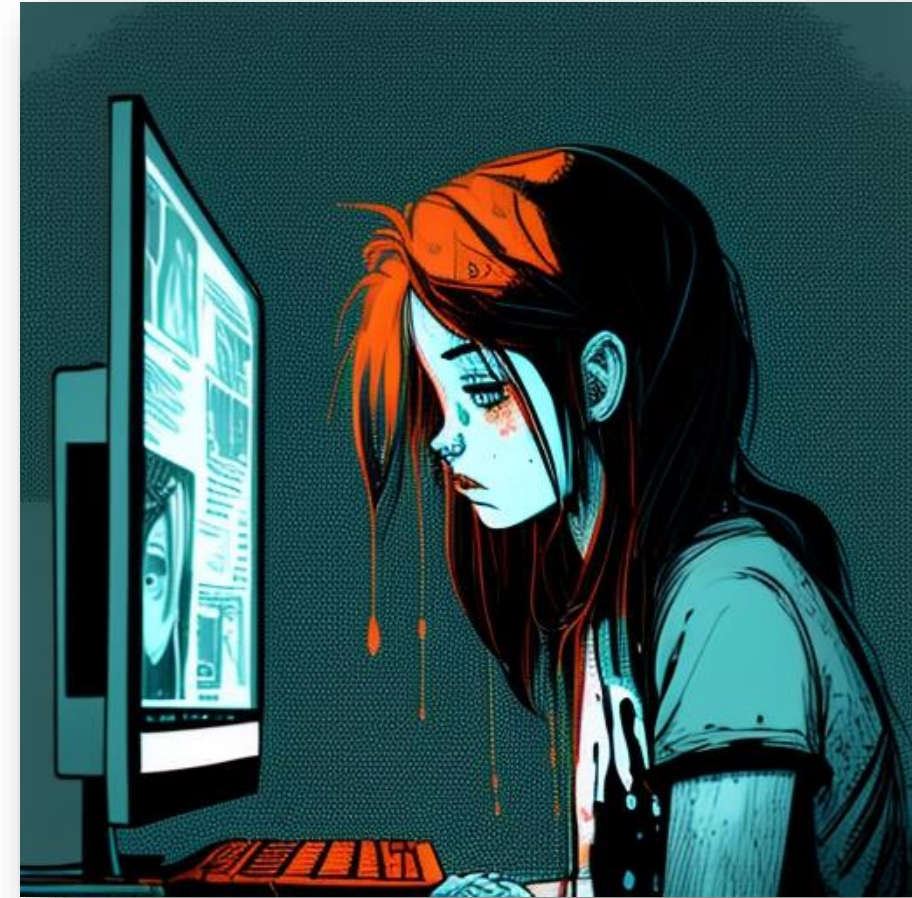
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- **Detrimental impacts** on individuals and society

(e.g., Foxman & Wolf, 2013; Isik et al., 2018; Keipi et al., 2018; Näsi et al., 2015; Tynes et al., 2020)





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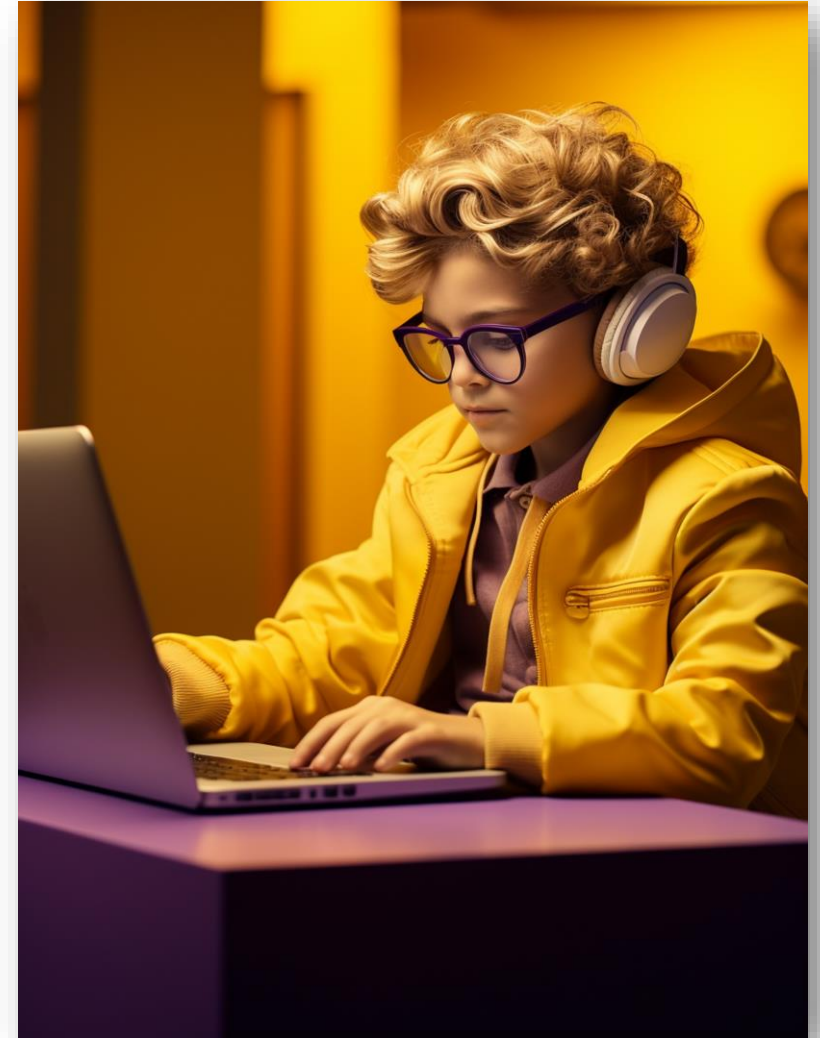
- Especially harmful for **young people** – attitude development, targeted by extremists

(Cortese, 2005; Douglas, 2010; Lee & Leets, 2002; McNamee et al., 2010)



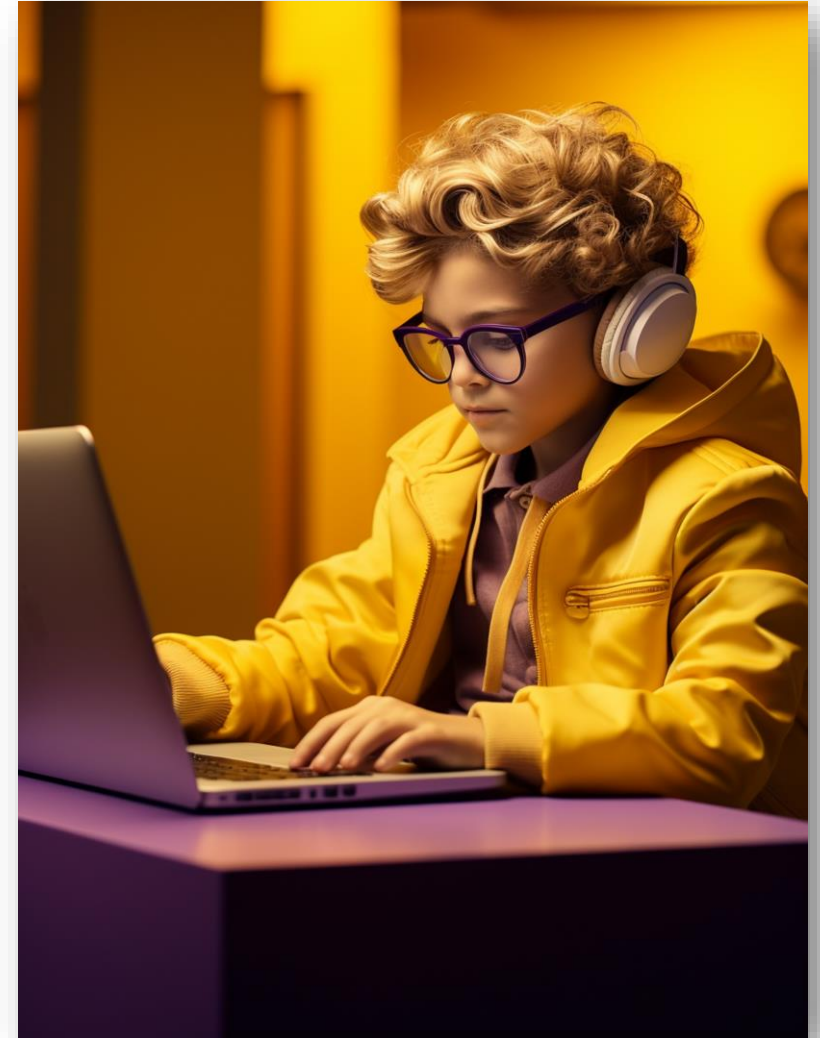
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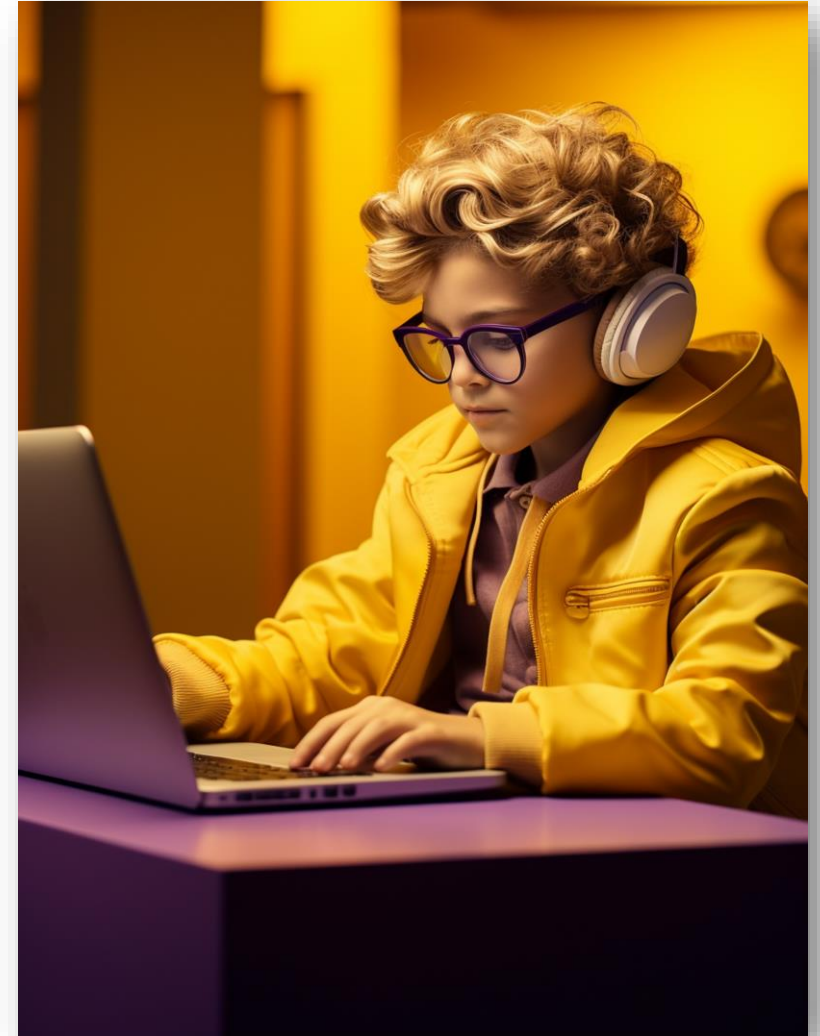
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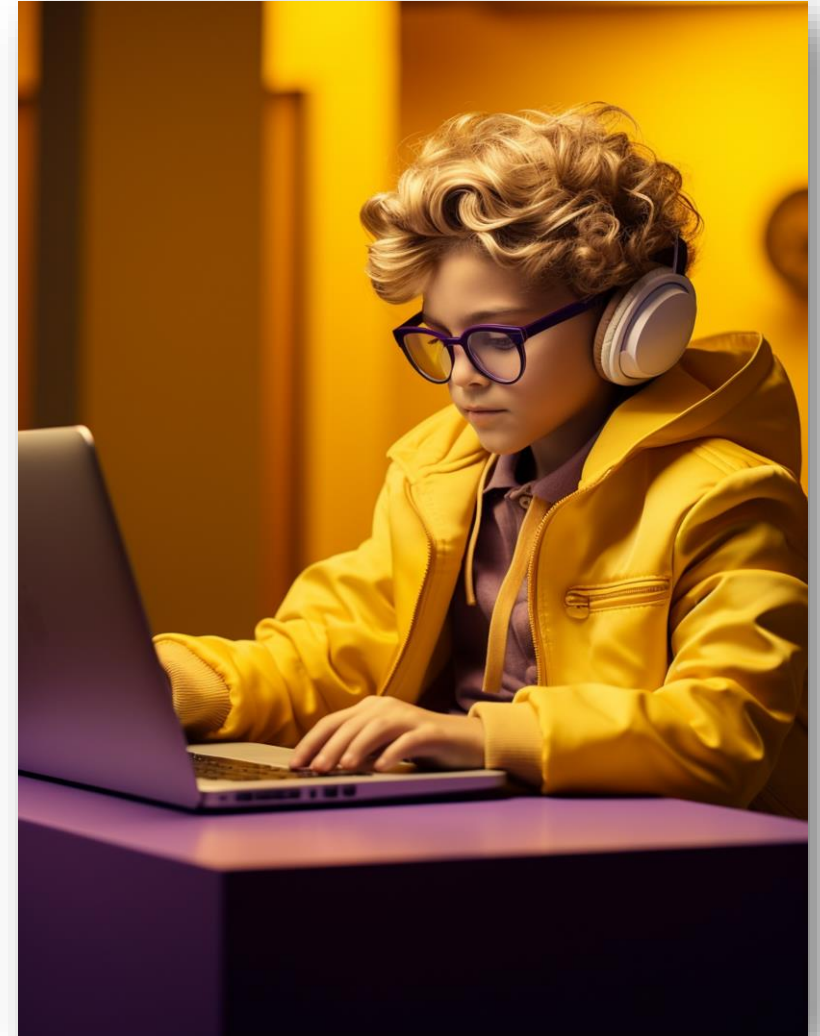
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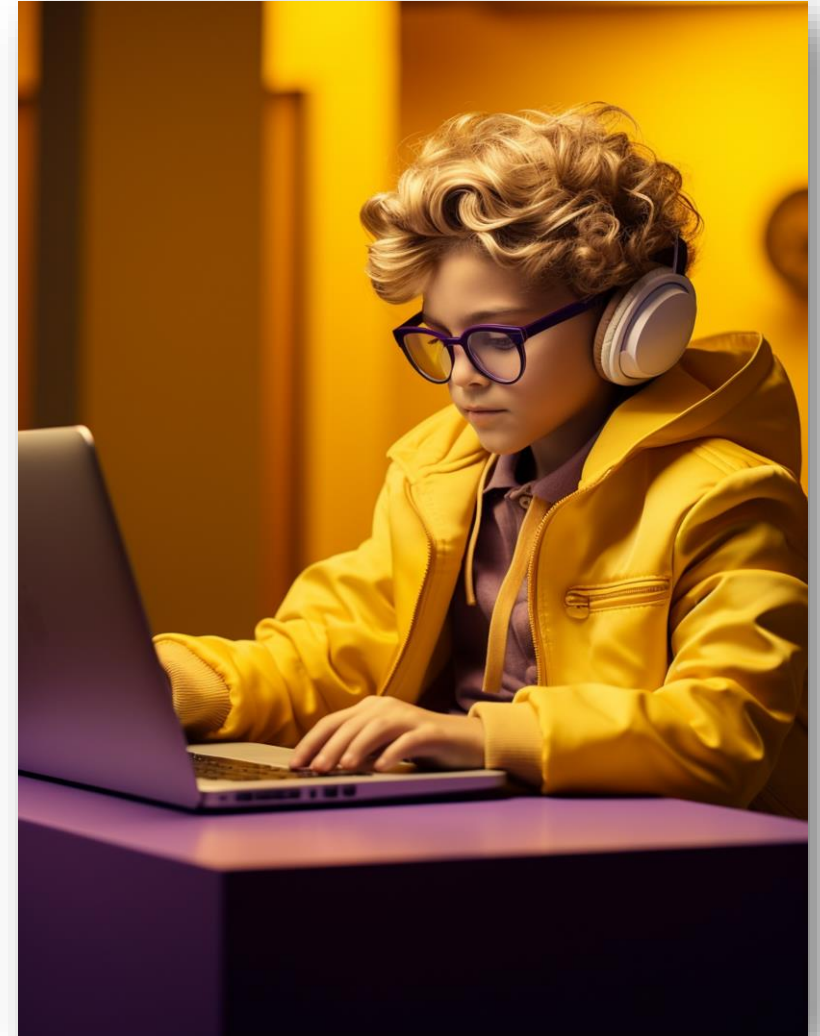
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- Individual differentiating factors – **perceived discrimination, digital skills**



# Perceived discrimination and cyberhate

- **Discriminated youth as a vulnerable population**

- Overlap of **offline** and **online** discrimination

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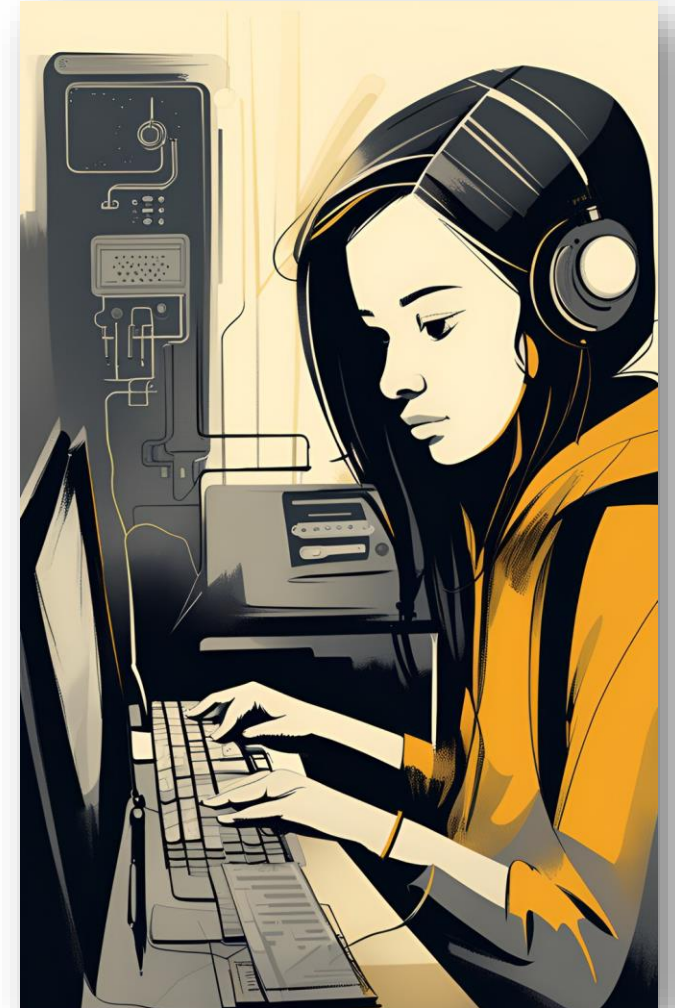
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(Bedrosova et al., 2023)
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- **RQ1: Does perceived discrimination decrease or increase intentional and unintentional cyberhate exposure?**



# Digital skills and cyberhate

- Higher digital skills = higher opportunities / more online risks

(Haddon et al., 2020; Mascheroni et al., 2020)



# Digital skills and cyberhate

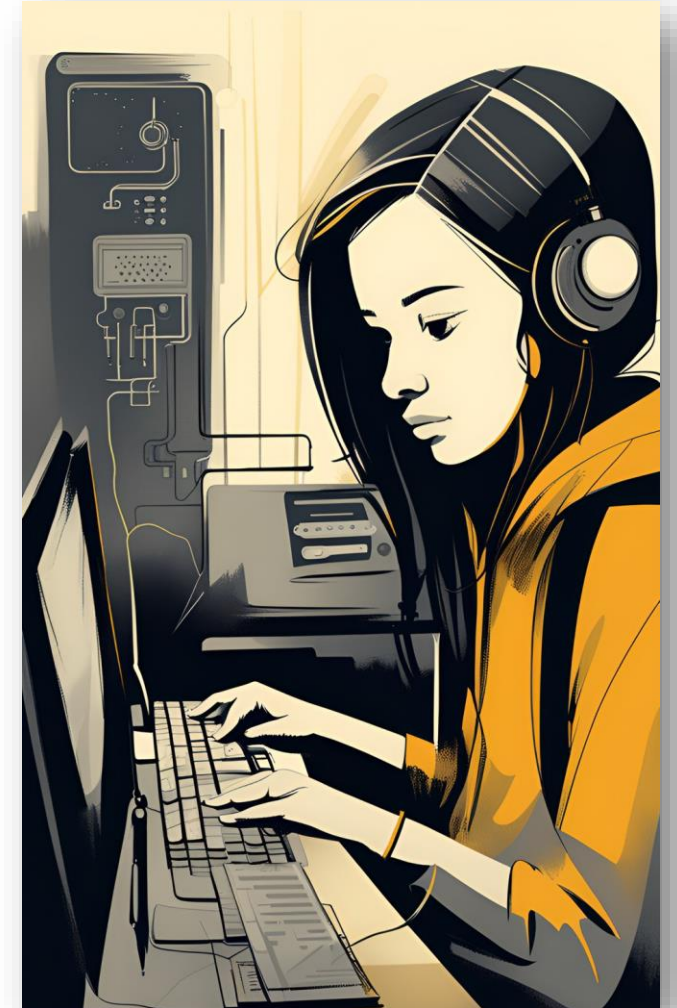
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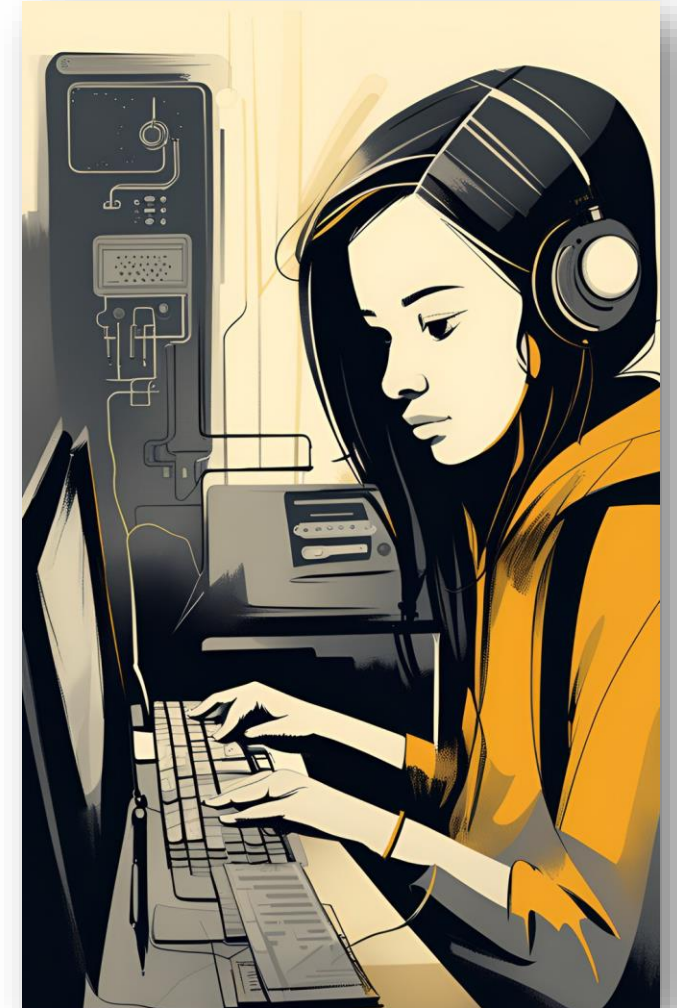
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- Digital skills – **multidimensional construct** (Donoso et al., 2020; Helsper et al., 2020)
  - Specific dimensions of digital skills can help to avoid harmful consequences of internet use (Sonck & de Haan, 2013)



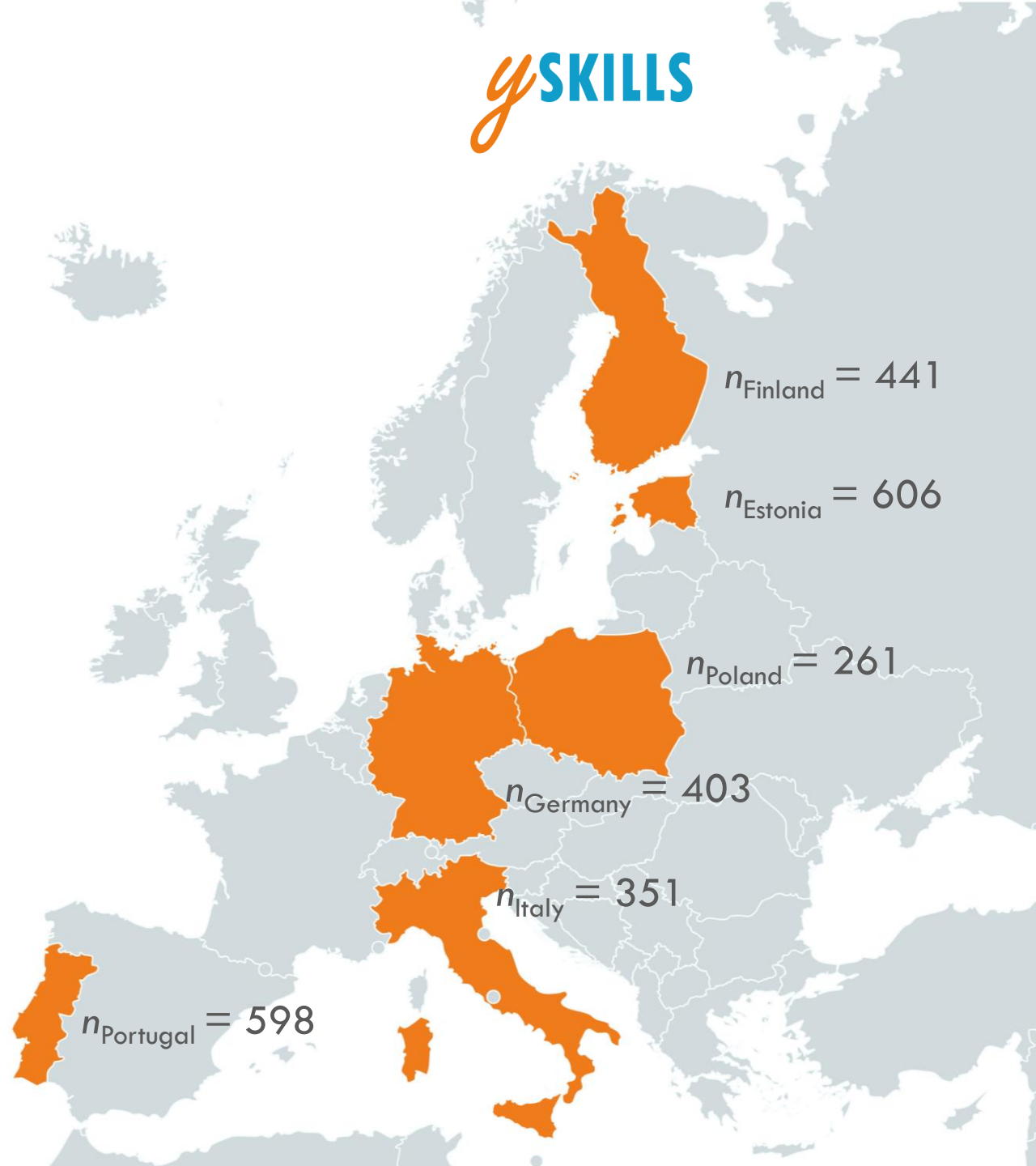
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- Digital skills – **multidimensional construct** (Donoso et al., 2020; Helsper et al., 2020)
  - Specific dimensions of digital skills can help to avoid harmful consequences of internet use (Sonck & de Haan, 2013)
- **RQ2: Do digital skills decrease or increase intentional and unintentional cyberhate exposure? What is the role of different digital skills dimensions?**



# Method

- **Longitudinal survey** (3 waves, 2021-2023)
- **Convenience sampling** of schools
- **$N = 2,660$**  (linked across 3 waves)
- Wave 1:
  - **12-15 yo** ( $M = 14.30$ ;  $SD = 1.21$ )
  - **50.2% girls**
- **Cross-lagged panel structural equation model (SEM)**
  - Investigating whether discrimination prospectively predicted digital skills, and whether digital skills in return predicted the un/intentional cyberhate exposure.



# Measures

- **Cyberhate exposure**

ON THE INTERNET, you may encounter content that attacks certain groups or individuals (e.g., because of their skin colour, religion, nationality, gender, or sexuality). This could be, for example, Muslims, migrants, Jews, Roma, etc. This could be in the form of hateful, degrading, or racist messages, comments, images, or videos.

In the PAST YEAR, have you seen something like this online or on a phone?



# Measures

- **Cyberhate exposure**

- 6-point scale
- How often have you seen something like this when you **DID NOT INTEND** to see it?

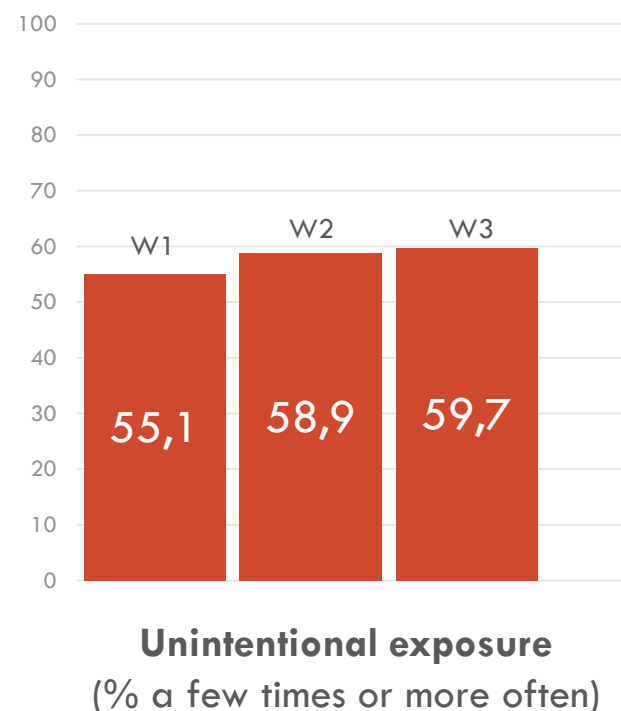
W1:  $M = 2.60$ ,  $SD = 1.57$

W2:  $M = 2.65$ ,  $SD = 1.51$

W3:  $M = 2.61$ ,  $SD = 1.45$

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- How often have you seen something like this when you **INTENDED** to see it?

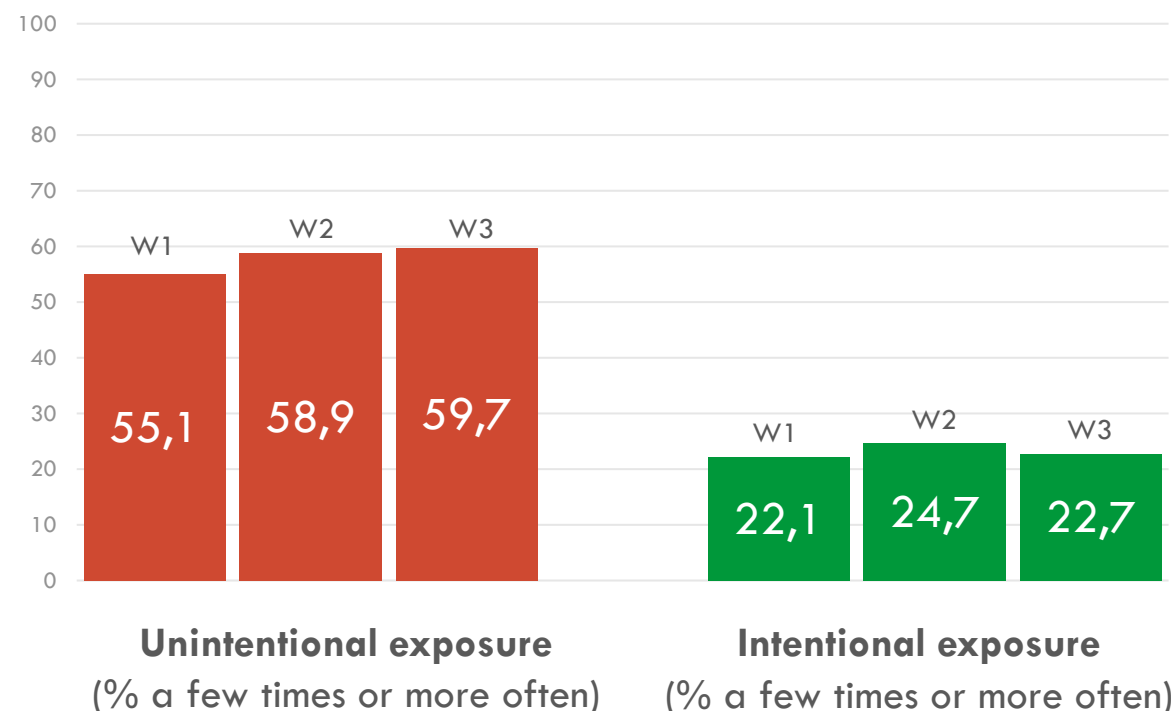
W1:  $M = 1.64$ ,  $SD = 1.19$

W2:  $M = 1.72$ ,  $SD = 1.29$

W3:  $M = 1.67$ ,  $SD = 1.25$

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# Measures

- **Perceived discrimination** (GKO, 2016)
  - 7-point scale
    - W1:  $M = 1.39$ ,  $SD = 0.98$
    - W2:  $M = 1.47$ ,  $SD = 1.03$
    - W3:  $M = 1.50$ ,  $SD = 1.04$

In the PAST YEAR, have you sometimes felt that you were treated badly in your daily life because of your family or where it is from, your skin colour, or your religion?

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- **Youth Digital Skills Indicator (yDSI)**
  - Digital skills: 5 dimensions, 21 items (6-point scale)  
+ knowledge items: 3 dimensions, 6 items (4-point scale)
  - See Helsper et al., 2021
  - All dimensions: Cronbach's  $\alpha > .70$

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## DIGITAL SKILLS DIMENSIONS:

Technical and operational (5 items)

Programming (1 item)

Information navigation and processing (5 + 2 items)

Communication and interaction (5 + 2 items)

Content creation and production (5 + 2 items)



### Technical and operational skills

- I know how to adjust privacy settings
- I know how to turn off the location settings on mobile devices
- I know how to protect a device (e.g. with a PIN, a screen pattern, a finger print, facial recognition)
- I know how to store photos, documents or other files in the cloud (e.g. Google Drive, iCloud)
- I know how to use private browsing (e.g. incognito mode)
- I know how to block unwanted pop-up messages or ads

### Programming skill

- I know how to use programming language (e.g. XML, Python)

### Information navigation and processing skills

- I know how to choose the best keywords for online searches
- I know how to find a website I have visited before
- I know how to find information on a website no matter how it is designed
- I know how to use advanced search functions in search engines
- I know how to check if the information I find online is true
- I know how to figure out if a website can be trusted

### Communication and interaction skills

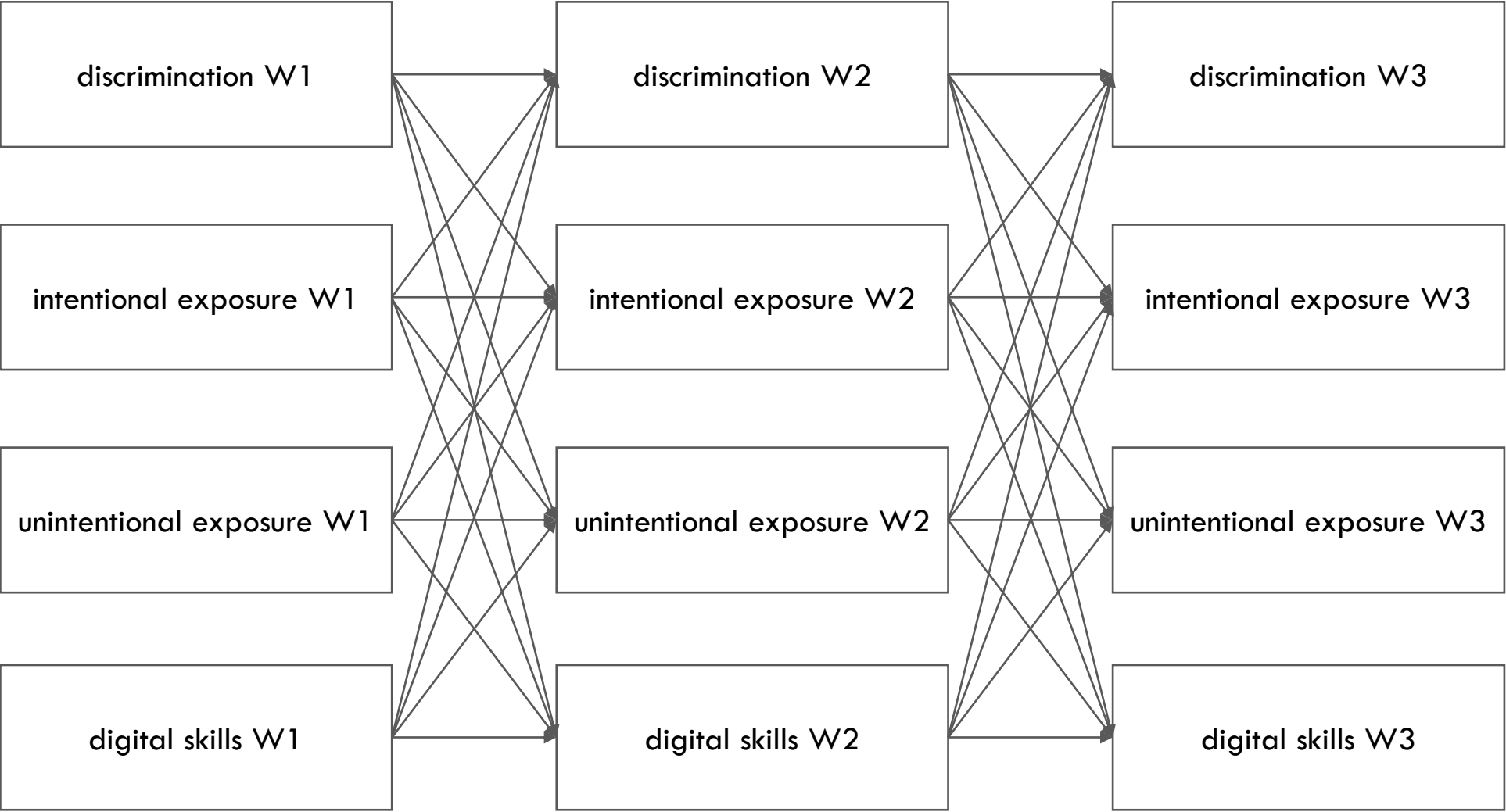
- Depending on the situation, I know which medium or tool to use to communicate with someone (e.g., make a call, send a WhatsApp message, send an email)
- I know when I should mute myself or disable video in online interactions
- I know which images and information of me it is OK to share online
- I know when it is appropriate and when it is not appropriate to use emoticons (e.g. smileys, emojis), text speak (e.g. LOL, OMG) and capital letters
- I know how to report negative content relating to me or a group to which I belong
- I know how to recognise when someone is being bullied online

### Content creation and production skills

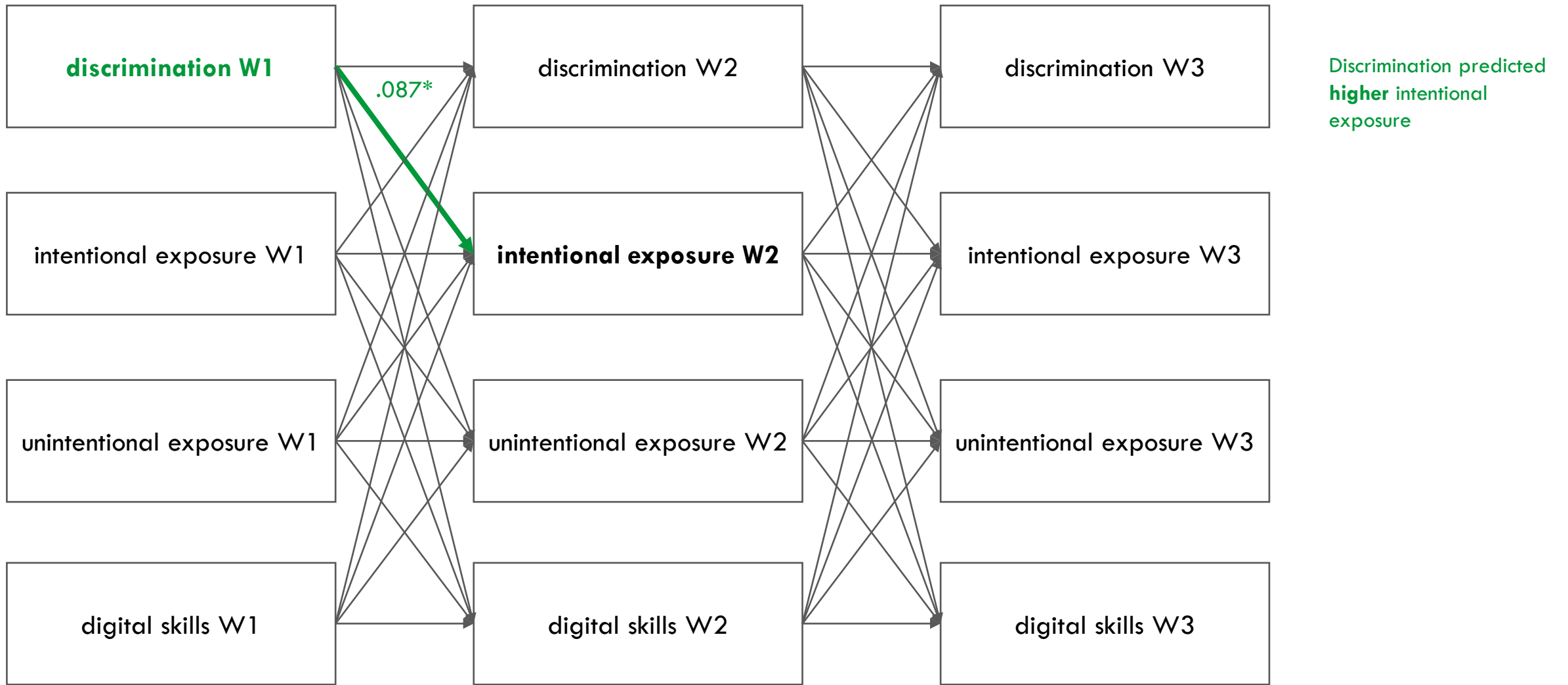
- I know how to create something that combines different digital media (e.g., photo, music, videos, GIFs)
- I know how to edit existing digital images, music and videos
- I know how to ensure that many people will see what I put online
- I know how to change the things I put online depending on how other people react to it
- I know how to distinguish sponsored and non-sponsored content online (e.g. in a video, in a social media post)
- I know how to reference and use content covered by copyright

### Knowledge items

- The first search result is always the best information source
- Everyone gets the same information when they search for things online
- The first post I see on social media is the last thing that was posted by one of my contacts
- Whether I like or share a post can have a negative impact on others
- Using hashtags (#) increases the visibility of a post
- Companies pay ordinary people to use their products in videos and content they create

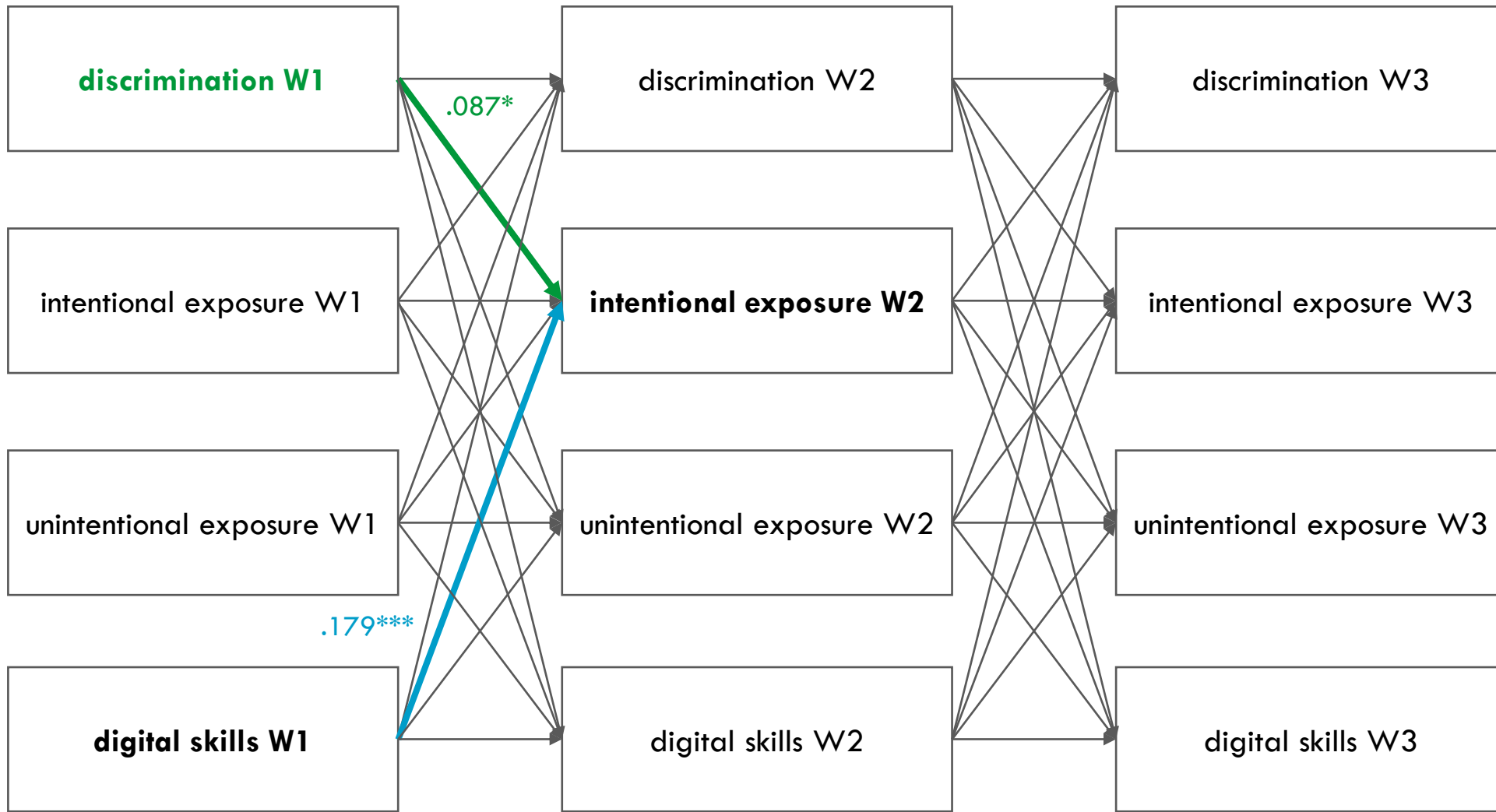


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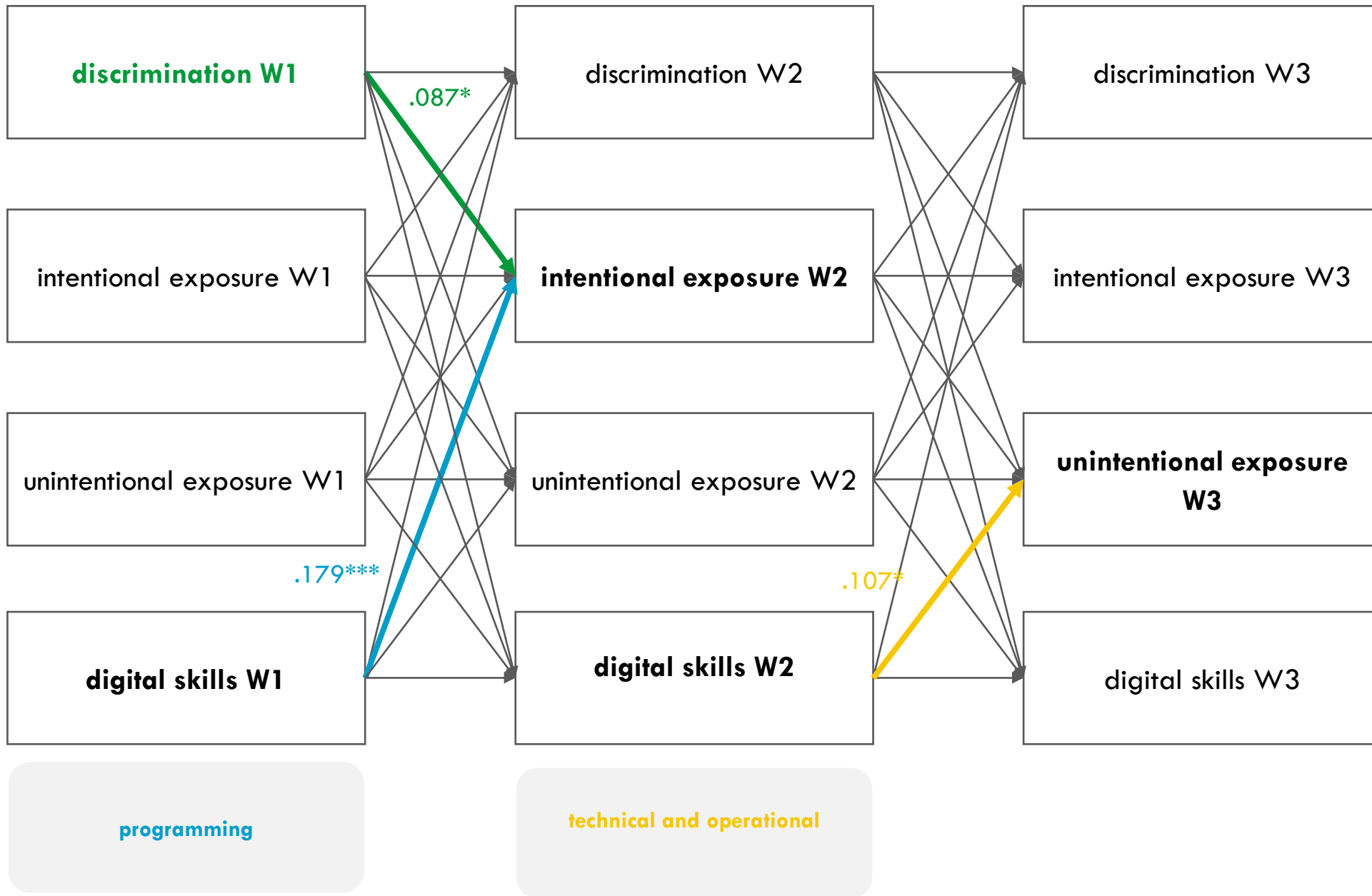
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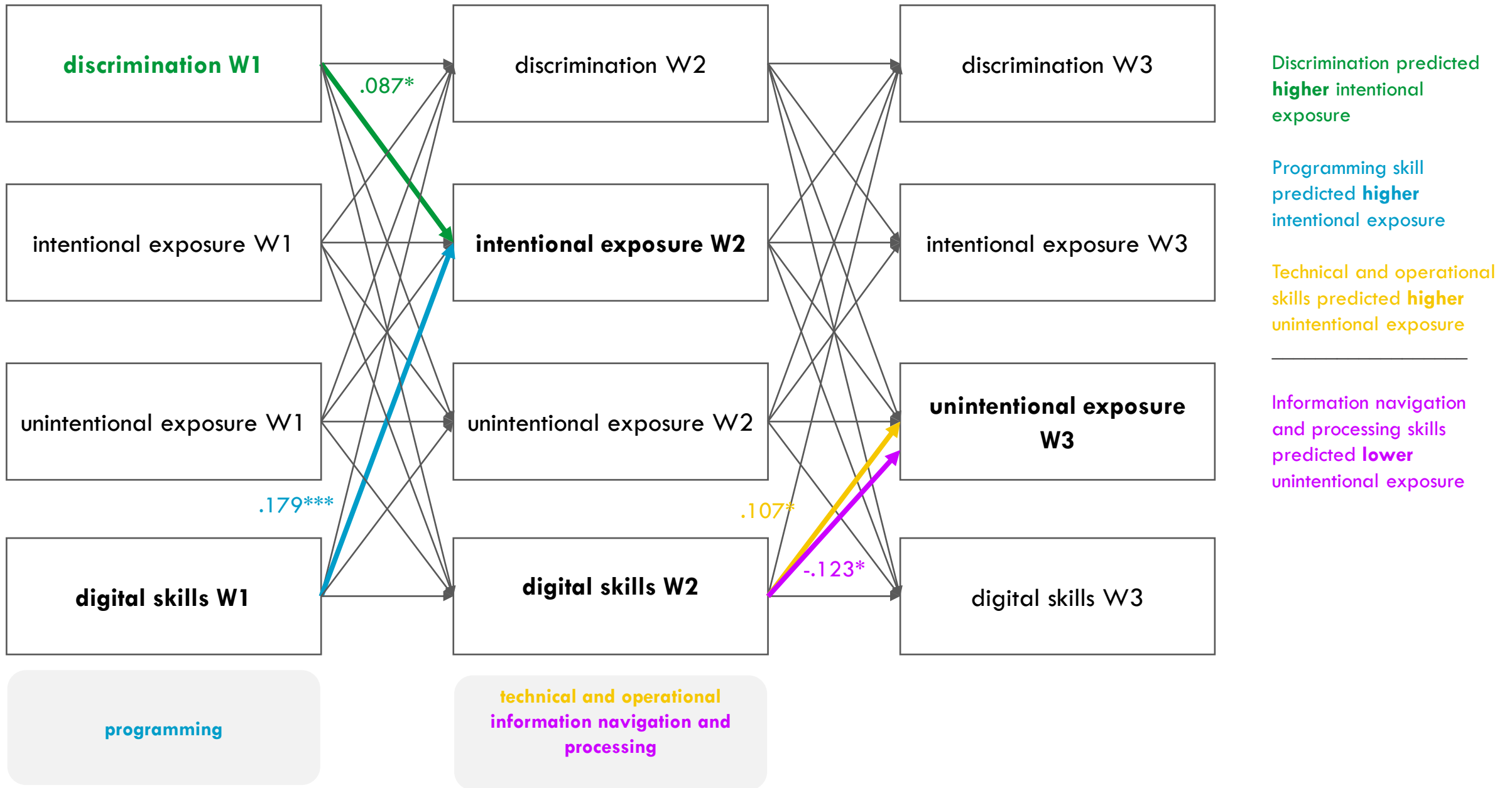
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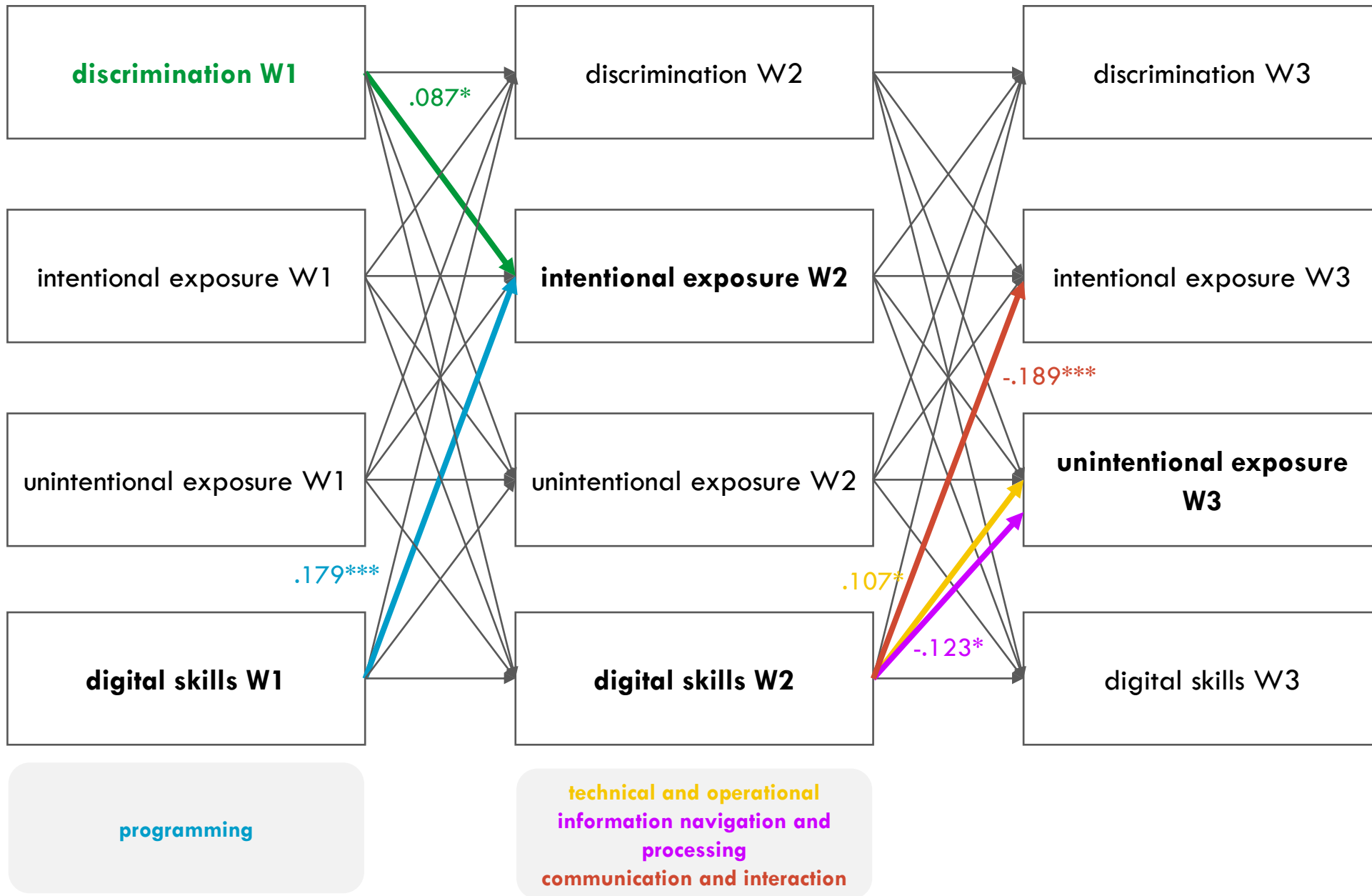
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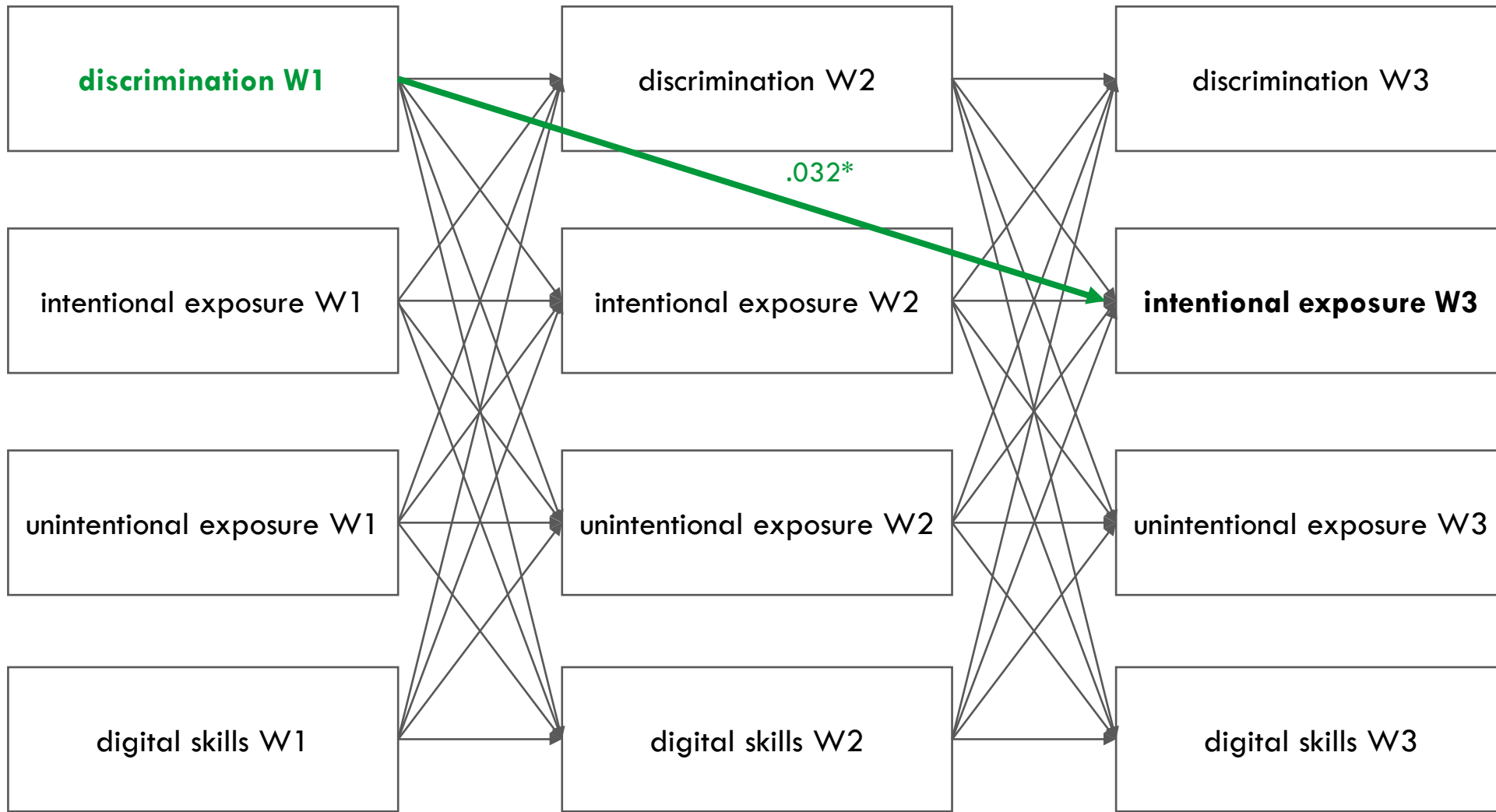
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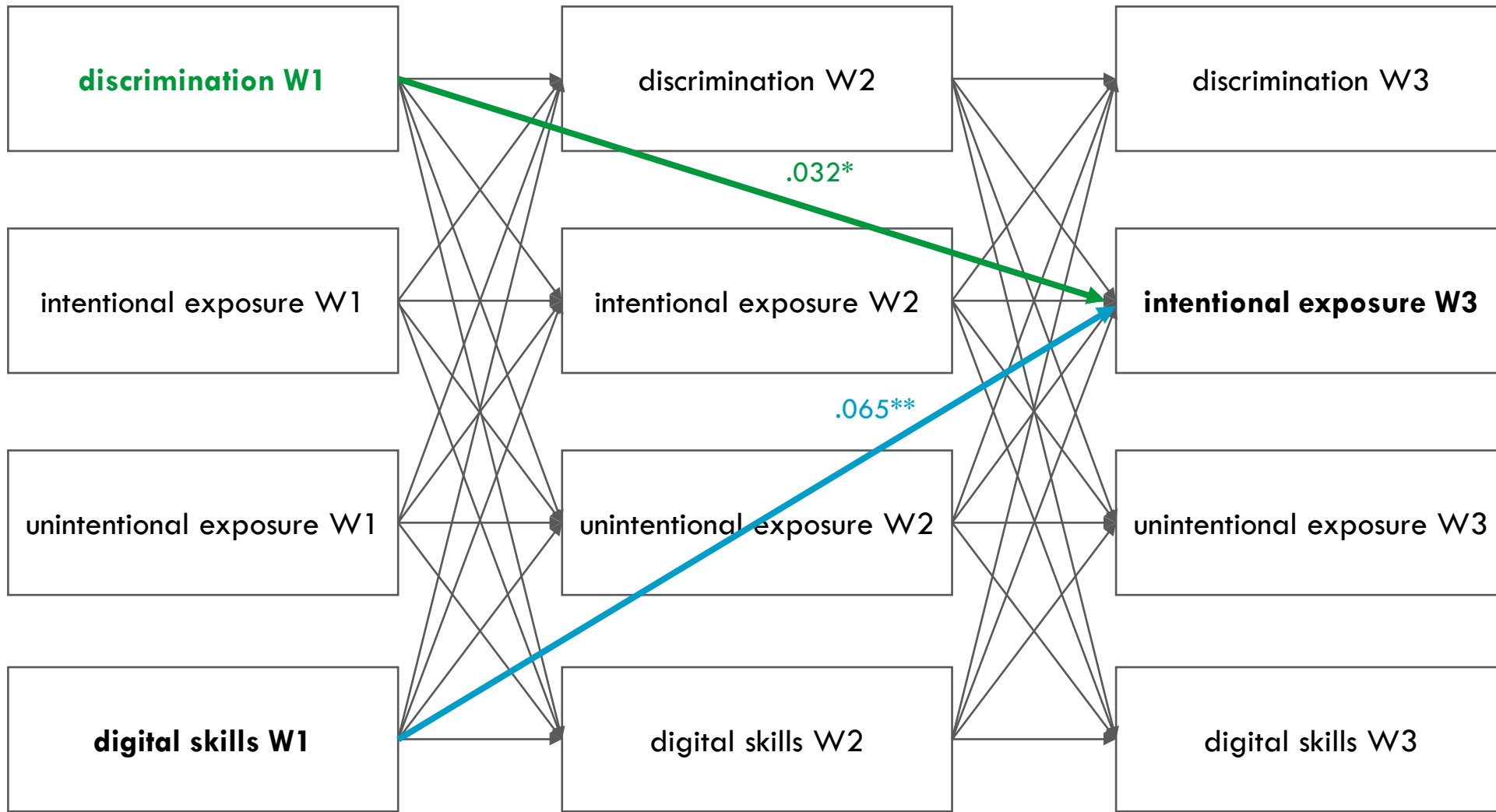


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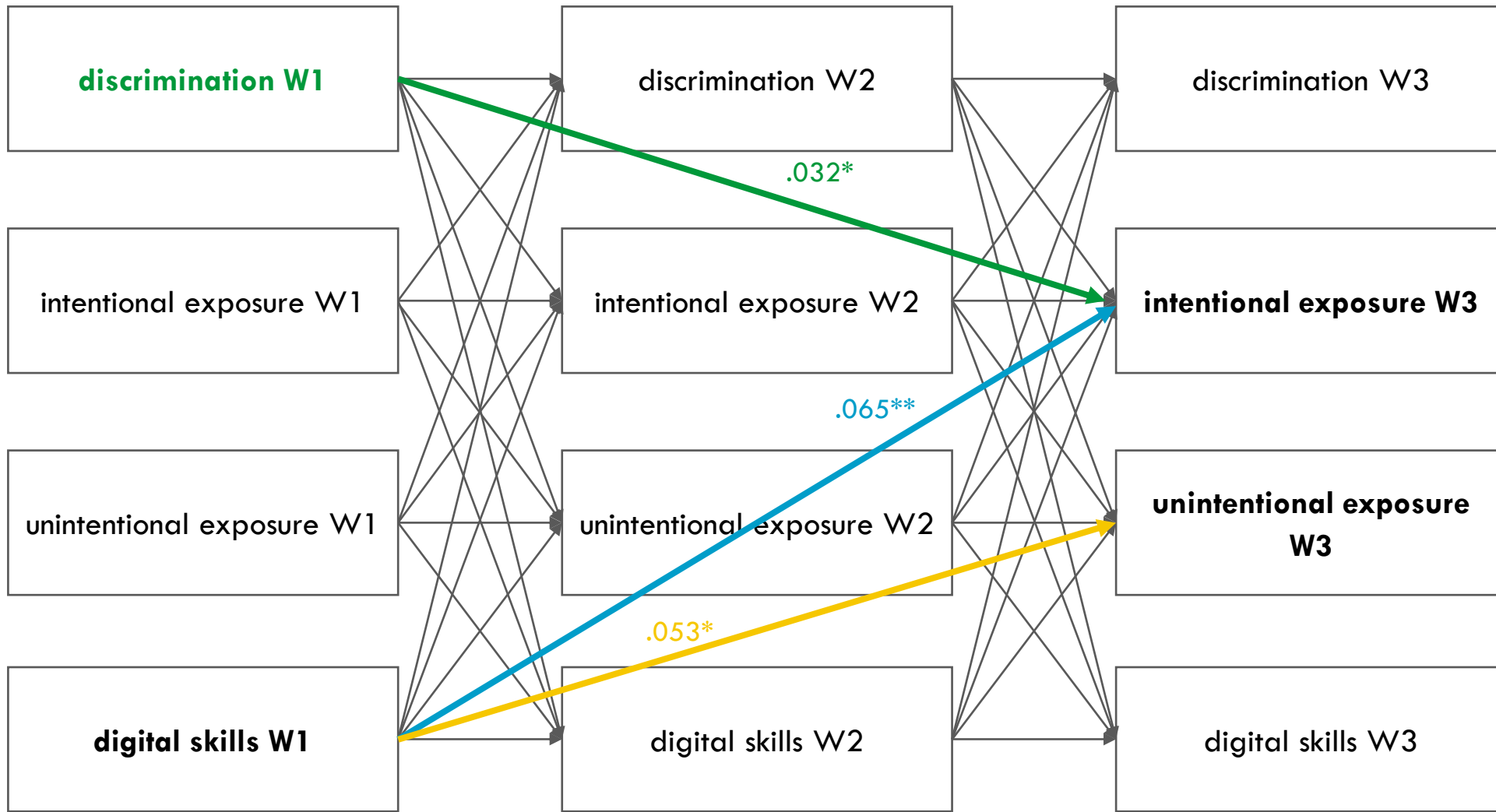


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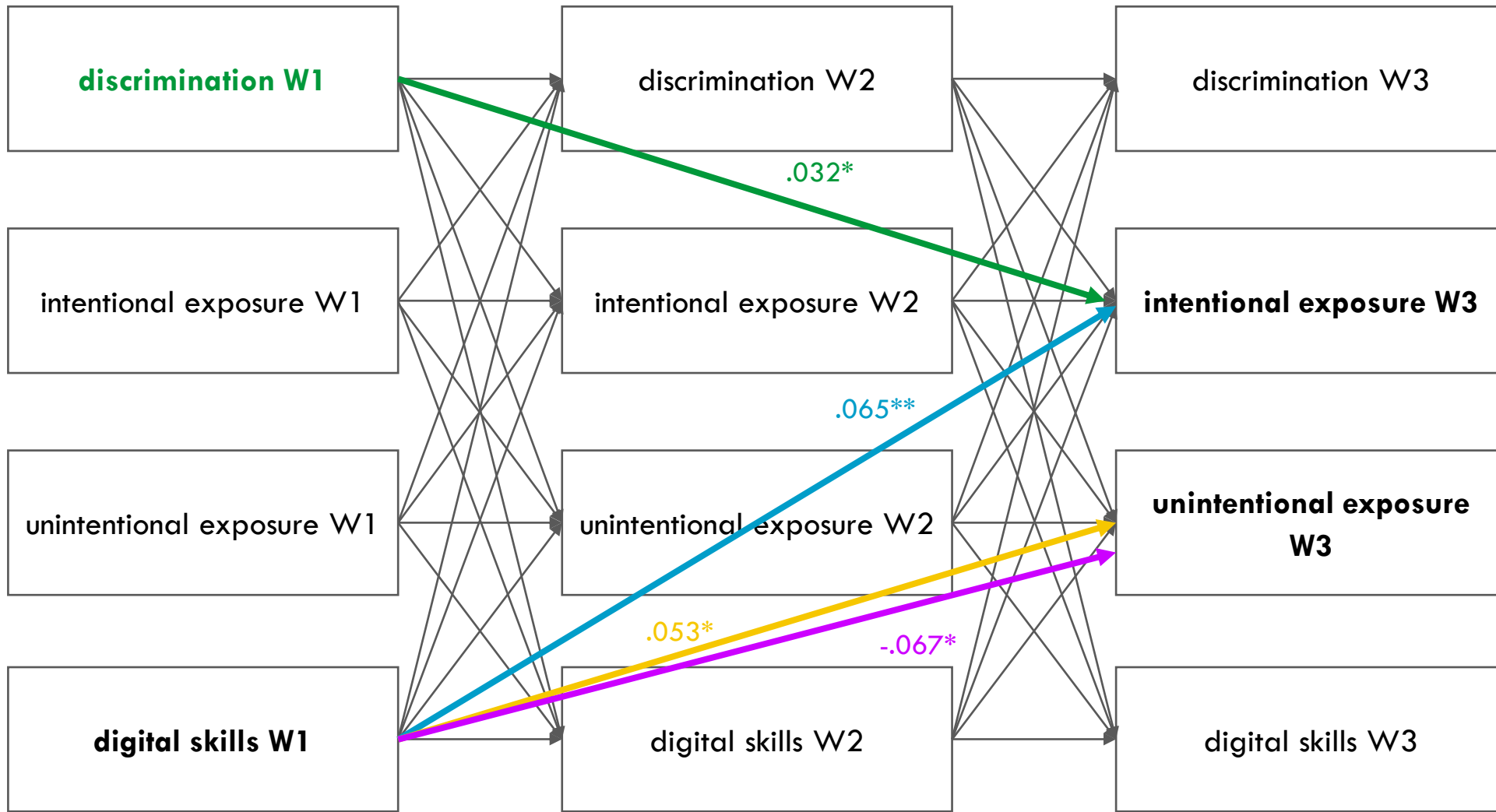
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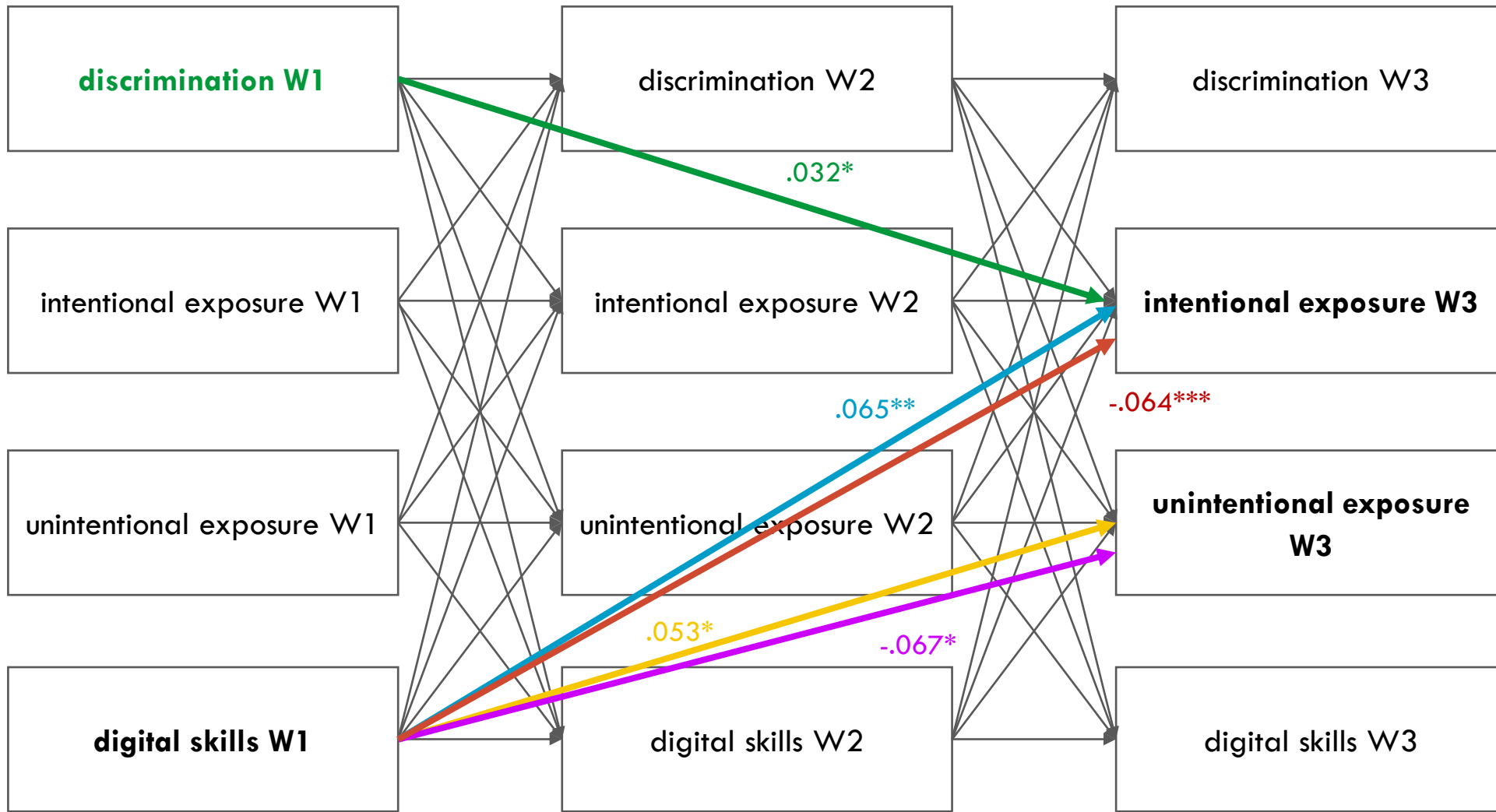
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Further investigation about motives for searching hateful contents is needed.  
Exploration of the link between intentional exposure and aggression.

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The role of digital skills in reducing harm after exposure (to cyberhate and harmful content)?

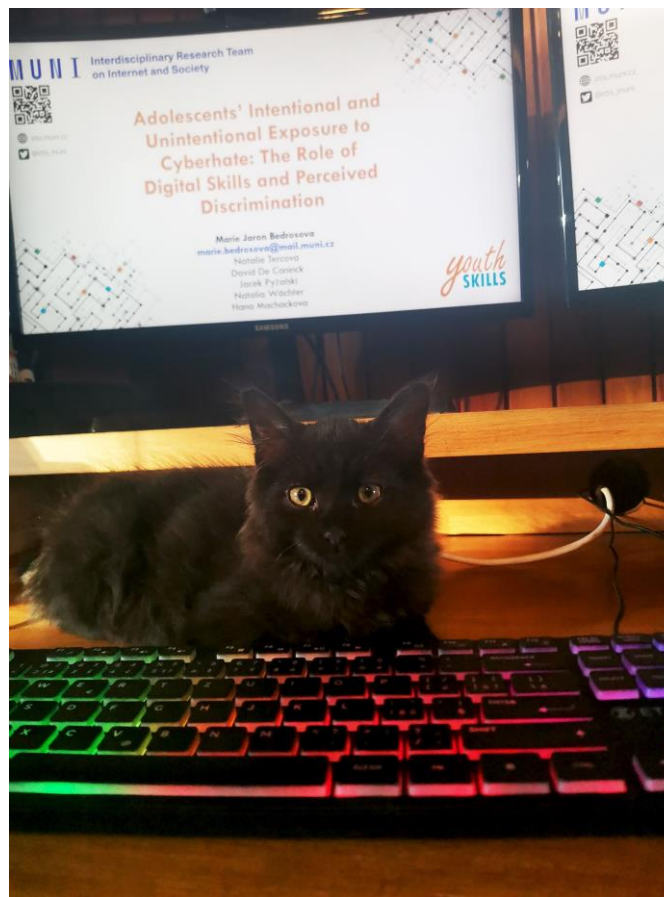




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# Thank you for your attention



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*youth*  
**SKILLS**