The Child-Teacher Technology Gap

By Arthur Goldstuck (Twitter: @art2gee)

GDE Colloquium, 21 August 2012
The research

- Self-funded study with assistance of 8 private schools and the Tomorrow Trust for learners from disadvantaged communities:
  - 1400 learners from grades 3 to 12 in private schools in Johannesburg;
    - Online questionnaires filled in at school.
  - 300 learners from grades 10 to 12 in township schools in Johannesburg and Pretoria area;
    - Printed questionnaires, filled in at holiday school.
The private schools findings
Are 21st century children different?

‘Digital Natives’?
At first sight, no
But dig deeper, and ...
The canary in the coalmine

Advanced in general use of Excel

- Students: 70%
- Parents: 46%
- Teachers: 44%
- What parents think children know: 22%
- What teachers think: 23%
The Teacher Gap appears

![Bar chart showing percentages of students, parents, teachers, and what parents and teachers think children know about advanced general Internet features.](chart.png)
Inside the teacher gap

Use Internet at home

- Students: 97%
- Parents: 95%
- Teachers: 89%
The Law of the Teacher Gap: it only grows wider
Running rings around you

Advanced in searching with Google

- Students: 93%
- Parents: 70%
- Teachers: 73%
- What parents think children know: 54%
- What teachers think: 55%
You think you’re so cool
Finding new ways to chat

Advanced users of Twitter

- Students: 36%
- Parents: 7%
- Teachers: 12%
- What parents think children know: 14%
- What teachers think: 41%
The new frontier

Smile for the cellphone

- Using camera built into phone:
  - Students: 90%
  - Parents: 63%
  - Teachers: 59%
  - What parents think children know: 65%
  - What teachers think: 60%

- Using other applications on the phone:
  - Students: 87%
  - Parents: 54%
  - Teachers: 49%
  - What parents think children know: 61%
  - What teachers think: 60%
The cellphone is the new playground

- **Browsing the Internet on a phone**
  - Students: 76%
  - Parents: 44%
  - Teachers: 47%
  - What parents think children know: 53%
  - What teachers think: 27%

- **Using e-mail on a phone**
  - Students: 58%
  - Parents: 44%
  - Teachers: 30%
  - What parents think children know: 50%
  - What teachers think: 11%

- **Using SMS**
  - Students: 90%
  - Parents: 81%
  - Teachers: 76%
  - What parents think children know: 65%
  - What teachers think: 64%

- **Using MXIT**
  - Students: 64%
  - Parents: 41%
  - Teachers: 51%

Note: The percentages represent the percentage of users who engage in these activities on their cellphones.
The township schools findings
Down, but not out

How well do you know basic computer functions?

Private schools averaged 84-90%
1 in 5 has good general skills

**Knowing your way around a PC**

- Non-existent: 19
- V Basic: 14
- Average: 14
- Advanced: 7
- V Advanced: 13

Private schools 85% advanced
Not ready for world of work

How well do you know different types of software?

- Microsoft Windows: 42
- Outlook (email): 18
- Outlook Express (email): 13
- Outlook Calendars: 21
- Create Outlook Contacts: 14
- Mail Merge Contacts with Word: 9

Private schools 85% advanced
And no support structure

How well do your parents know different types of software?

- Microsoft Windows: 39
- Outlook (email): 18
- Outlook Express (email): 17
- Outlook Calendars: 19
- Create Outlook Contacts: 13
- Mail Merge Contacts with Word: 11
Software tools a mystery

How well do you know MS Excel?

Private schools 70% advanced in general Excel use
The Internet holds the future

How well do you know Acrobat, Email, Internet & IM?

Private schools 82% advanced in Internet
Google is the doorway

How well do you know online search?

Google: 44
Wolfram Alpha: 10
LiveSearch: 22
Ask Jeeves: 8

Private schools 93% advanced in Google
Not yet such private lives

Private schools 70% advanced in Hotmail
The new doorway

How well do you know Facebook?

- Facebook: 36
- Privacy settings: 28
- Applications: 29

Private schools 84% advanced in Facebook use
Playing with the future

How good are you with multimedia?

- Downloading music: 45
- Downloading games: 45
- Downloading videos: 45
- Editing music: 32
- Editing videos: 32
- Playing online games: 38

Private schools twice as advanced
Enter the cellphone

How well do you know your way around cellphones?

- General usage: 52
- Browsing the Internet: 49
- Using e-mail: 38
- Using SMS: 69
- Using MXIT: 67
Beware of the app

Private schools 90% and 87% advanced
Mxit: the great leveller

Private: How well do you know your way around cellphones?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browsing the Internet</td>
<td>76</td>
</tr>
<tr>
<td>Using e-mail</td>
<td>58</td>
</tr>
<tr>
<td>Using SMS</td>
<td>90</td>
</tr>
<tr>
<td>Using MXIT</td>
<td>64</td>
</tr>
</tbody>
</table>
How well do you know your way around cellphones?

- General usage: 52
- Browsing the Internet: 49
- Using email: 38
- Using SMS: 69
- Using MXIT: 67
The big secret:

Digital peer-group learning
The teacher imperative

Teachers need to be upskilled in four areas:

1. Internet tools, for subject teaching and research;
2. Social media (blogs, etc) tools for teaching, research and sharing;
3. Social networking (Facebook, IM, etc) tools for communicating with each other and students, and understanding the context of their students;
4. Cellphone knowledge, to understand how students are communicating on campus
The next step

Four possible approaches to each of these:

1. Subject- and topic-specific training on how to leverage information technology (IT) in class;
2. Workshops to talk through issues teachers have with IT, and how to resolve them;
3. “Tips and tricks” talks to provide quick wins;
4. Peer group learning interventions/sessions.
Thank you

Arthur Goldstuck (011) 7827003
arthur@worldwideworx.com

www.worldwideworx.com

Twitter: art2gee

Business strategy blog
www.thebigchange.com