

Abstract

Purpose: Librarians at the University of Houston conducted a broad assessment of personal technology ownership and use among undergraduate students, as well as utilizing external assessments to evaluate trends within our user population and the general public. This presentation will discuss ways to use assessment data from local and national sources to inform decisions related to planning for and purchasing library technology.

Design/Methodology/Approach: This assessment was conducted using a web-based Survey instrument, distributed to a random sample of undergraduate students. The instrument gathered information about device ownership and use, including the types of activities for which each device was used and the locations in which they were used most frequently. This information was compared to national data about device ownership and use, with particular focus on the annual ECAR study conducted by Educause.

Findings: Our assessment indicated that in many ways, our students' technology usage is similar to that of students surveyed in national projects. This knowledge will allow us to rely more heavily on external data sources for informing technology planning and purchasing, without concerns that these sources may be unrepresentative of our extremely diverse student body.

Practical Implications/Value: This assessment model can be replicated by other institutions to support their own technology use studies. The external data sources discussed in the presentation may also be of use to other libraries that do not wish to conduct a broad assessment of their own user group.

Data Sources

National Surveys: Many national surveys of technology ownership exist. These surveys are usually conducted by research centers or think tanks, and include a large number of respondents.

- Pros: Statistically significant, Provide analysis, Show trends
- Cons: Might not ask the question that you want, Often need to look at several reports to get the whole picture, Might not match your population
- Examples: Pew Internet & American Life Project, Educause ECAR Survey of Undergraduate Students and Information Technology

Local Surveys: Surveys of your local user population. This allows you to collect and analyze your own information.

- Pros: Ask exactly the questions you want, Survey your actual users
- Cons: Time-intensive, limited population, may require IRB approval, requires skilled staff to conduct and analyze

Usage Data: This is data that you may already be collecting on your users, such as weblogs and Analytics information. This type of data can provide rich information such as browser, operating system, or device model.

- Pros: Easy to gather, Unbiased, Actual user behavior, Able to see trends over time
- Cons: Unable to ask "why?", Must do analysis yourself, Might not answer your question
- Examples: Google Analytics, Session Logs

Assessing Technology Ownership and Use to Gain Insight for Planning and Purchasing

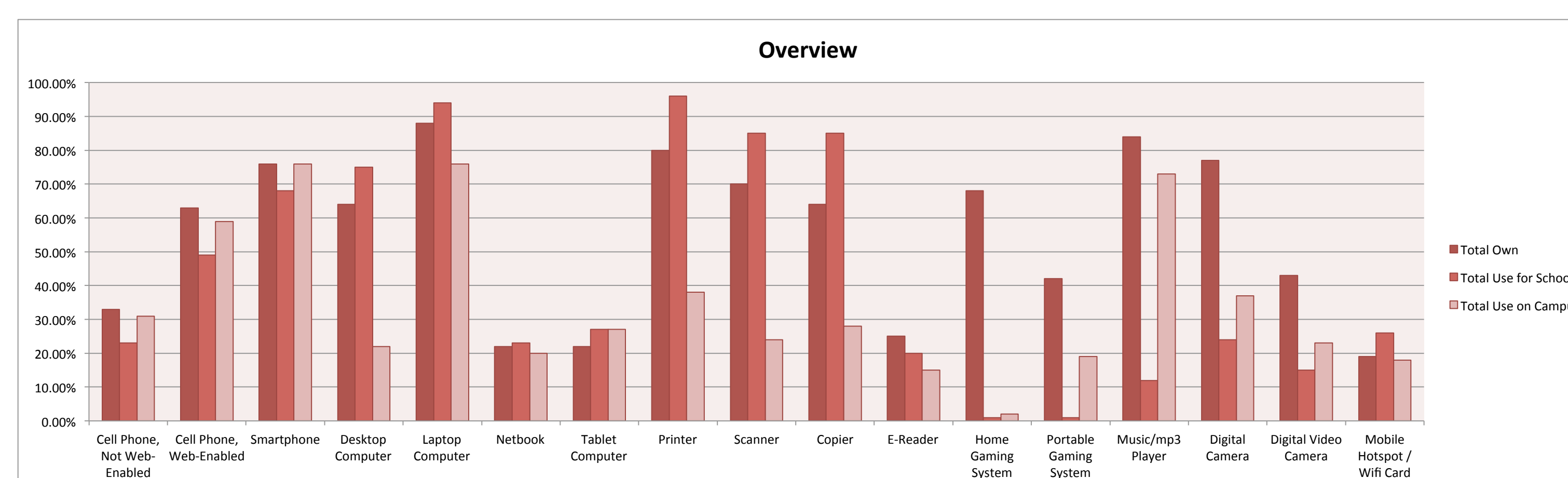
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Results

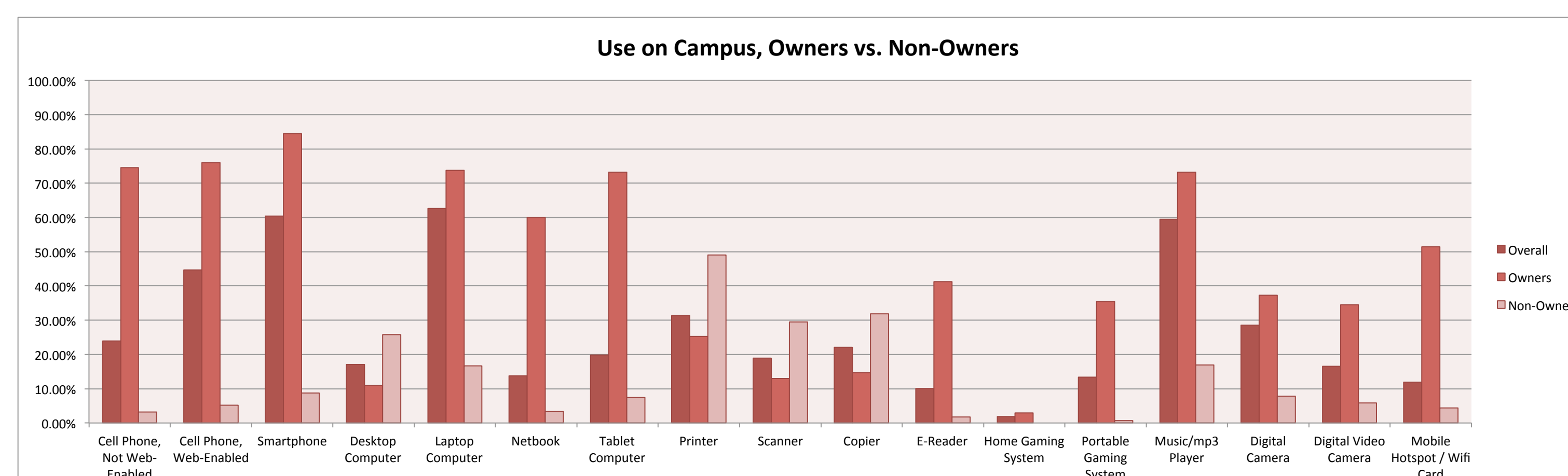
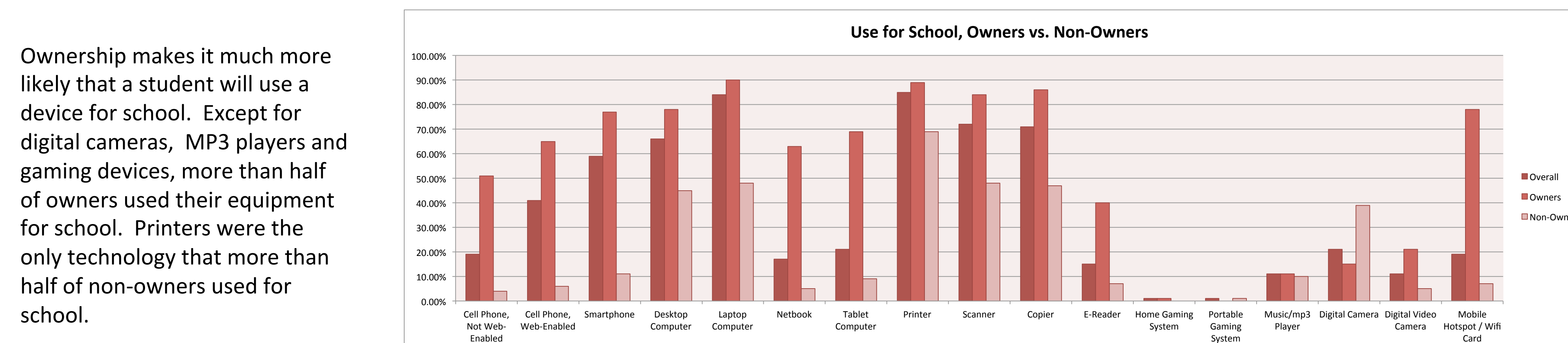
Surprisingly, our data lined up very neatly with data from national surveys. With slight variations due to question phrasing, our students were very comparable to the populations surveyed by Pew and ECAR in terms of overall ownership. One notable exception is the higher rate of Tablet ownership by UH students, which is likely due to the timing of our survey – around six months later than the others.

Looking at our data, we were particularly interested in overall rates of device ownership, use for school, and use on campus. We then looked at the rates of use for school and on-campus between device owners and non-owners.

| Technology Ownership | ECAR | Pew | UH |
|-----------------------------------|------|-----|-----|
| Laptop | 87% | 88% | 88% |
| Printer | 81% | N/A | 80% |
| Stationary gaming device | 66% | 58% | 68% |
| iPod (Pew and UH: any MP3 player) | 62% | 84% | 84% |
| Smartphone (Pew: any cellphone) | 55% | 96% | 76% |
| Desktop computer | 53% | 59% | 64% |
| Netbook | 11% | N/A | 22% |
| Tablet computer (ECAR: iPad only) | 8% | 5% | 22% |



Standard office equipment such as printers, scanners and copiers are heavily used, and at least 60% of students report owning this equipment. Use of this equipment on campus is relatively low even though access is available on campus. It is interesting to note that desktop computers as well as printers, scanners, and copiers are used for school at a higher rate than they are owned.



Owners of portable devices were very likely to bring their devices to campus, and used them on campus more frequently than non-owners. However, stationary devices such as desktop computers and printers were more likely to be used on campus by non-owners. These devices remain an important service to students who do not own them.

Study Design

Why do our own study?

- Campus demographics: Commuters, First-generation, 2nd most ethnically diverse institution in US
- Specific interest in topics not covered in other studies: Locations of use, Brands, Internet connections

About the Study:

- Underwent IRB approval process Summer 2011
- Conducted survey November-December 2011

Population:

- Random sample of undergraduates, no other parameters
- Recruited via email
- Response group was representative of campus demographics
- 221 Responses

Survey Instrument:

- 9 questions, including demographic information
- Ownership, Purpose of Use, Locations of Use, Internet Connections
- "Grid" question structure

Challenges:

- Low response rate
- Survey instrument more complex and time-consuming than intended
- Brand and Internet connection questions were often misinterpreted
 - Example: often listed cell phone provider (i.e. Verizon) rather than brand/model (i.e. iPhone)
 - Respondents largely unaware of how they connect to internet, particularly on campus

Next Steps

Rely on national survey data for planning purposes:

- Know that national survey data should be a reliable guide for our general planning and purchasing decisions
- Can utilize trend predictions and forecasts from these sources

Only survey when we have a specific question to answer:

- Can limit studies of our local population to more specific questions
- Example: upcoming focus groups on changing use of campus libraries

Share data with campus IT partners:

- Important for maintaining sufficient network capacity
 - Example: Library IT does not have control over wireless network capacity
- Compare our technology offerings to other labs/resources on campus

Resources

Educause ECAR Study

Pew Internet & American Life Project

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